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Relationship between Constructive Deviance, Proactive Behaviors and Innovation : analysis of the Constructs and their Consequences

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THÈSE PRÉSENTÉE

POUR OBTENIR LE GRADE DE

DOCTEUR

DE

L'UNIVERSITÉ DE BORDEAUX

ÉCOLE DOCTORALE: SOCIÉTÉS, POLITIQUE, SANTÉ PUBLIQUE (SP2)

SPÉCIALITÉ : Psychologie du Travail et des Organisations

Par Guillaume DEPREZ

**RELATION ENTRE DEVIANCE CONSTRUCTIVE,
COMPORTEMENTS PROACTIFS ET INNOVATION:
ANALYSE DES CONSTRUITS ET DE LEURS
CONSEQUENCES**

Sous la direction du Professeur : Adalgisa BATTISTELLI

Soutenue le 04/05/2017

Membres du jury :

Mme POHL, Sabine	Professeur	Université libre de Bruxelles	Président
Mme VONTHRON, Anne-Marie	Professeur	Université Paris X Nanterre	Rapporteur
M. BOUDRIAS, Jean-Sébastien	Professeur	Université de Montréal	Examineur
Mme BATTISTELLI, Adalgisa	Professeur	Université de Bordeaux	Directeur

Titre : Relation entre Déviance Constructive, Comportements Proactifs et Innovation: Analyse des Construits et de leurs Conséquences

Résumé :

Le but de cette recherche était d'examiner la relation entre la déviance constructive (Galperin, 2012 ; Warren, 2003 ; Vadera, Pratt, & Mishra, 2013), la proactivité (Grant & Ashford, 2008 ; Parker & Collins, 2010) et leur rôle dans le processus de changement et d'innovation (CI) en contexte organisationnel (Potočnik & Anderson, 2016). Nous avons tout d'abord examiné la littérature portant sur la déviance et la proactivité. Nous avons ensuite concentré notre attention sur la création d'une échelle d'attitudes normatives et déviantes (NDAS) pour traiter l'aspect dynamique de la déviance. Ensuite, nous avons exploré la nature du construit de déviance et ainsi traité la relation aux CI. Nous avons proposé l'existence de deux facteurs d'ordre supérieur: le *constructive dark side* et *constructive bright side*. Ensuite, nous avons testé la relation entre ces facteurs et des conséquences communes (engagement affectif, bien-être, détresse et intention de départ).

Nous avons recruté des travailleurs français par le biais de questionnaires pour tester nos hypothèses. Nous avons donc utilisé, créé ou traduit des échelles de mesures des comportements de déviance constructive (Galperin, 2012), d'innovation (Janseen, 2000), de prise en main (Morisson & Phelps, 1998) ou la NDAS... Nous avons également procédé, dans certains cas, à plusieurs recueils de données espacées dans le temps.

Dans la plupart des cas, des analyses de modélisation d'équations structurelles ont été utilisées. Les résultats et les limites sont discutés dans chaque chapitre des articles. Ces résultats aident à clarifier le construit de déviance constructive et sa relation avec la proactivité dans la littérature de CI.

Mots clés : Déviance Constructive, Proactivité, Innovation, Engagement, Regroupement de concept, Comportement/Attitudes

Title: Relationship between Constructive Deviance, Proactive Behaviors and Innovation: Analysis of the Constructs and their Consequences

Abstract:

The aim of this research was to examine the relation between constructive deviance (Galperin, 2012; Warren, 2003; Vadera, Pratt, & Mishra, 2013), proactivity (Grant & Ashford, 2008; Parker & Collins, 2010) and their role in change and innovation (CI) processes in organizational context (Potočnik & Anderson, 2016). After we examined the deviance and proactive literature related to work and organizational psychology, we focused our attention on the creation of a normative and deviant attitudinal scale (NDAS) to deal with the dynamic aspect of deviance. Then, we explored the nomological network of deviance and treated its relationship with CI related-constructs. We, therefore, proposed the existence of two higher-order factors named constructive dark-side and constructive bright-side. Latterly, we tested for a second time the relation between these second-order factors and common outcomes (affective commitment, well-being, distress, and turnover intent).

We used research by questionnaire to test our entire hypothesis on French workers. For this, we used, created and/or translated scales of constructive deviant behaviours (Galperin, 2012), NDAS, innovative work behaviour (Janseen, 2000) or taking charge (Morisson & Phelps, 1998)... We also proceeded, in some cases, with measurements at different times to provide better analysis.

In most cases, structural equation modelling analyses were performed. Results and limitations are discussed in each article chapters (chapters 2, 3, & 4). These results help to clarify the nomological network of constructive deviance and its relationship with proactivity in the CI literature. To our knowledge, this study is one of the first to follow this path and test it.

Keywords: Constructive Deviance, Proactivity, Innovation, Commitment, Umbrella Terms, Behaviours/Attitudes

Unité de recherche

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THANK YOU

Texte long Français

Introduction

Les recherches sur la déviance constructive depuis vingt ans sont en pleine expansion (Galperin, 2012 ; Spreitzer & Sonenshein, 2003; Vadera, Pratt, & Mishra, 2013), de même que la recherche sur l'identification d'un facteur commun aux comportements constructifs (Cropanzano, Anthony, Daniels, & Hall, 2017; Potočnik & Anderson, 2016; Vadera et al., 2013). Il est donc logique que des études comme celle de Vadera tentent de regrouper sous un seul et même label (déviance constructive) des comportements sortant des normes établies et orientés vers le changement. Cependant, la nature de certains comportements sélectionnés se retrouve également dans les construits liés au changement et à l'innovation (CI; Potočnik & Anderson, 2016). De plus, la nature spécifique aux comportements de déviance constructive et celle spécifique aux comportements proactifs ne semblent pas permettre de tous les regrouper sous un seul et même label de déviance positive. Pourtant, un intérêt commun pour apporter du changement et de l'innovation se retrouve dans chacun de ces construits. C'est pourquoi, nous proposons l'existence de deux axes relatifs aux comportements constructifs s'inscrivant dans la littérature des CI: le *constructive dark side* (CDS) et le *constructive bright side* (CBS). Nous mettons également en avant le fait que l'approche attitudinale relative à la déviance reste non-explorée et gagne à être investiguée.

Dans le Chapitre 1, nous examinons et développons la littérature relative à la déviance et la proactivité. Dans le Chapitre 2, nous proposons de s'intéresser à la création d'une échelle d'attitude déviante et normative (NDAS) pour traiter de l'aspect dynamique de la déviance. Dans le Chapitre 3, nous explorons la nature théorique de la déviance en analysant sa relation avec des construit proches, telle que la proactivité, et s'intégrant dans les dimensions de CI. Nous

développons ainsi l'existence de deux facteurs de second ordre, le CDS et le CBS. Dans le Chapitre 4, nous étudions la relation existante entre les comportements de CDS, CBS et leurs conséquences (engagement affectif, bien être, détresse et intention de départ). Nous proposons également que l'implémentation d'innovation joue un rôle médiateur dans la relation existante entre les CDS, CBS et leurs conséquences. Enfin, dans le Chapitre 5, nous discutons brièvement sur les apports de chacun des chapitres précédents, puis nous traitons les implications, limites, et future recherches en lien générés par notre travail de recherche. Les chapitres 2, 3 et 4 ont fait l'objet, ou vont faire l'objet de soumission à des revues en tant qu'article de recherche. Afin de faciliter la compréhension du travail fourni pour réaliser cette thèse, nous présenterons, dans ce texte long, des résumés pour chacun des chapitres.

Chapitre 1. Théorie Générale

Afin de mieux cibler le construit relatif à la déviance constructive (Galperin, 2012 ; Vadera et al., 2013 ; Warren, 2003) et sa relation avec des comportements liés aux processus de CI (Potočnik & Anderson, 2016), nous avons présenté dans ce chapitre une analyse de la littérature sur nos principales variables. Nous avons donc traité les thèmes relatifs à la déviance dans les sciences sociales (e.g., Becker, 1963 ; Clinard, & Meier, 2001 ; Warren 2003) afin de mieux cibler les typologies relatives aux aspects destructeurs (Benett & Robinson, 2000) et constructifs. En ce qui concerne la déviance constructive (Galperin, 2002), le thème phare de ce travail de recherche, nous avons décliné son étude en trois approches : l'approche dynamique (Acharya & Taylor, 2012 ; Moscovici, 1987), l'approche comportementale (Galperin, 2012) et l'approche comme un agglomérat de comportements (Vadera et al., 2013). Ce faisant, nous nous sommes orientés vers l'analyse de comportements proches telle que la proactivité (Grant & Ashford, 2008). Pour cibler la nature complexe de ce comportement, nous avons dans un premier

temps exploré l'approche liée à la personnalité proactive (Bateman & Crant, 1993), puis nous nous sommes intéressés à l'aspect comportemental (Crant, 2000; Tornau & Frese, 2013), et enfin nous avons traité la dynamique proactive (Ashford & Grant, 2008) mais aussi de l'existence de facteur de second ordre spécifique à la proactivité (Parker & Collins, 2010). Enfin, nous nous sommes questionnés sur les liens sous-jacent qui existent entre la déviance constructive et la proactivité (Vadera et al., 2013), par l'étude de dimensions supérieures telle que l'inclination des comportements vers le CI (Potočnik & Anderson, 2016).

Chapitre 2. Validation statistique de l'Echelle Attitudinale Normative et Déviante (NDAS) Adapter au Contexte Organisationnelle Français

La théorie de la déviance introduit une vision comportementale de la déviance constructive (Galperin, 2002) et destructive (Bennett & Robinson, 2000), elle explique comment une intention individuelle peut nuire ou améliorer le bien-être organisationnel (Warren, 2003). Cependant, à notre connaissance, aucune échelle n'existe pour évaluer l'aspect attitudinal de la déviance et de la normativité. Le but de cette étude était de créer une échelle d'attitudes normatives et déviantes (NDAS) et d'étudier les propriétés psychométriques de l'outil à partir de données recueillies auprès de 615 travailleurs. L'analyse exploratoire de la NDAS a fait ressortir comme résultat final une échelle en 12 items composée de quatre facteurs: *normative conformity*, *normative rule respect*, *deviant performance* and *deviant initiative*. L'analyse factorielle confirmatoire corrobore la structure factorielle en quatre sous-échelles. Les validités convergente et discriminante ont indiqué que les dimensions déviantes sont positivement liées à la prise de parole (Maynes & Podsakoff, 2014), à la flexibilité cognitive (Martin & Ruben, 1995) et aux comportements déviants positifs (Galperin, 2012; Dhaling, Chau, Mayer, & Gregory, 2012), tandis que les dimensions normatives sont négativement ou non liées à ces comportements. En

outre, on observe une relation opposée entre la dimension générale de conformité (Reysen & Branscombe, 2008) et les quatre facteurs de la NDAS.

Chapitre 3. Comportements de Déviance Positive ou Construit Relatif au Changement et à l'Innovation: une Approche Conceptuelle via l'Etude des Dimension de *Constructive Bright Side* et *Constructive Dark Side*

Cette recherche explore le construit relatif à la déviance constructive en analysant la relation entre le comportement déviant constructif et les concepts liés. Dans une série de deux études, la nature et le rôle du comportement déviant constructif sont étudiés. La première étude consiste en une validation de la traduction en français du comportement déviant constructif de Galperin (2012); les validités convergente et discriminante supportent la traduction de l'échelle française de 7 items. La deuxième étude explore la relation entre les comportements déviants positifs tels que les comportements déviants constructifs (Galperin, 2012) et les comportements de rupture des règles dans un but prosocial (Dahling et al., 2012), avec des construits similaires (Vadera et al., 2013) ; tels que la prise de parole (Maynes & Podsakoff, 2014), le comportement d'innovation au travail (Janseen, 2000), et la prise en main (Morrison & Phelps, 1999). Les résultats montrent que deux facteurs supérieurs (CDS et CBS), regrouperaient respectivement les comportements déviants (CDS) et les comportements proactifs (CBS). Les résultats concernant les deux facteurs de second ordre, nous renseignent donc sur la disparité existante entre ces comportements, néanmoins tous orientés vers le CI.

Chapitre 4. Relation entre le *Constructive Dark Side* et le *Constructive Bright Side*, et leurs Conséquences: Etude du Rôle Médiateur du Comportement d'Implémentation d'Innovation au Travail

Le but de cette étude est d'analyser le rôle médiateur du comportement d'innovation au travail (Janseen, 2000) entre les CDS, CBS et leur conséquences; celle-ci sont l'engagement affectif (Meyer, Allen, & Smith, 1993), le bien-être lié à l'implication dans le travail (Gilbert, Dagenais-Desmarais, & Savoie, 2011), la détresse liée au désinvestissement dans le travail (Gilbert et al., 2011) et l'intention de départ des individus (Vandenberghe, 2008). Premièrement, nous discutons brièvement de la recherche sur l'innovation en contexte organisationnel. Ensuite, nous détaillons le CDS (composé de comportements déviants), CBS (composé de comportements proactifs) et leurs différents résultats potentiels, en discutant du rôle médiateur du comportement d'innovation au travail. Nous avons réalisé cette recherche auprès de 311 travailleurs français, recruté par le biais des réseaux sociaux et qui ont répondu à deux temps de recueil (avec un délai de six mois). Notre étude propose ainsi un nouveau modèle de médiation incluant les constructions CDS et CBS avec leurs résultats, médiées par la mise en œuvre du comportement d'innovation au travail. Aucune relation n'a été observée entre la mise en œuvre de la CDS et de l'implémentation d'innovation au travail, mettant ainsi en question l'impact innovateur des comportements déviants lors des phases d'implémentation. Seule une relation négative entre la CDS et l'engagement affectif a été observée. Par contre, une médiation totale par la mise en œuvre du comportement d'implémentation d'innovation a été démontrée entre la CBS et chacun de ses résultats. Ainsi, les comportements proactifs pourraient produire des résultats différents, et ils pourraient être des antécédents clés dans la production de la mise en œuvre du comportement d'innovation au travail.

Chapitre 5. Discussion Générale

Pour explorer le construit de déviance constructive, nous avons donc tout d'abord analysé l'aspect attitudinal de la déviance. Se détachant des principes de constructivité ou de destructivité, nous avons pu montrer, par le biais d'une création d'échelle, qu'il existait bien un aspect attitudinal de la déviance mais également de la normativité. Nous avons également montré qu'il existait un lien corrélationnel important entre les attitudes déviantes et les comportements de déviance constructive et les comportements proactifs. L'étude sur l'aspect de conformité nous a également renseignés sur la relation négative existante entre la propension individuelle à la normativité et ces comportements.

Suite à ces résultats, nous nous sommes intéressés à l'aspect comportemental de la déviance constructive. Nous avons dans un premier temps proposé une traduction en langue française de l'échelle du comportement de déviance constructive de Galperin (2012). Les analyses de validité de cette échelle nous ont montrées que comme proposé par Galperin (2012), que l'échelle était bien composée de deux dimensions (interpersonnelle et organisationnelle) et qu'elle était bien reliée à des concepts proches comme le *prosocial rule breaking* (Dahling et al., 2012) ou l'innovation (Janseen, 2000). Suite à ces résultats, nous avons testé dans un second temps, via des analyses factorielles confirmatoires, l'existence d'un facteur de second ordre regroupant des comportements susceptibles d'être considérés comme déviants (Vadera et al., 2013). Les résultats obtenus nous ont montré qu'il existait deux facteurs d'ordre supérieur, l'un regroupant des comportements proactifs (CBS) et l'autre regroupant des comportements déviants (CDS). Une corrélation moyenne entre les deux facteurs était observée, indiquant ainsi qu'il y avait bien un lien entre ces différents comportements orienté vers le changement et l'innovation.

Enfin, afin de déterminer la relation existante entre les facteurs de CDS et CBS, nous avons mené une étude sur les possibles conséquences partagées par ces deux facteurs. Une

analyse du rôle médiateur de l'implémentation d'innovations intervenant dans la relation existante entre les comportements de CDS et CBS a également été étudiée. Les résultats portant sur la relation avec les conséquences nous ont indiqué que les deux facteurs de second ordre étaient bien différents l'un de l'autre. En effet, le CDS avait une relation négative avec l'engagement affective, le seul lien observé concernant ce facteur. La relation du CBS avec ses conséquences, quant à elle, était totalement médiée par l'implémentation d'innovation. De plus, cet effet médiateur de l'innovation, ouvre de toute nouvelles perspectives que ce soit au niveau de la déviance constructive, la proactivité ou même vis à vis du rôle de l'innovation.

Conclusion

En résumé, via l'ensemble des études mené dans cette dissertation nous avons pu explorer, sous l'angle du changement et de l'innovation, les trois approches de la déviance constructive (attitudinale, comportementale et en tant qu'un agglomérat de comportements). Mais surtout, nous avons pu observer que la déviance était un construit spécifique qui, bien que semblable sur certains points, ne pouvait pour autant être confondu avec d'autres construits théoriquement proches. Bien que les spécialistes de l'organisation aient de plus en plus mené des recherches sur la proactivité, la déviance et l'innovation, le domaine est toujours ouvert à de nouvelles recherches. En effet, il existe de multiples possibilités d'études à réaliser.

Preface

In exploring the modalities of deviances constructs, we highlighted that constructive deviance was analysed according to three main approaches. One of them, in particular, had an integrative approach presenting constructive deviance as an agglomerate of constructive behaviours, oriented towards change and innovation. We have thus identified an essential point in the literature, that of determining the underlying relationships existing between the set of behaviours. Was there anything in common with all of these constructs studied in the literature, were they different, similar or were they one and same constructed ... This is how we have taken a direction, to target two main sets of concepts, positive deviance and proactive behaviours. We have chosen to address these dimensions in terms of change and innovation.

Our effort has culminated in articles of which three constitute paragraphs of the dissertation that have been submitted or in attempted to be submitted. Moreover, some of our researches carried out during our years of doctoral students have been presented at conferences.

Long Text

Déprez, G., Battistelli, A., Boudrias, J. S., & Hatier, D. E. (2016). *La déviance constructive: analyse française des propriétés de l'échelle de Galperin (2012)*. Manuscript submitted for publication.

Article 1 (Chapter 2)

Déprez, G., Battistelli, A., & Antino, M. (2017). *Normative and Deviant Attitudinal Scale (NDAS) Adapt to Organizational Context: a French Statistical Validation*. Manuscript submitted for publication.

Article 2 (Chapter 3)

Déprez, G., Battistelli, A., & Boudrias, J. S. (2017). *Positive Deviant Behaviours or Change and Innovation-related Construct: a Constructive Bright and Dark Side Approach*. Manuscript submitted for publication.

Article 3 (Chapter 4)

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Presentations

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Introduction

Research on constructive deviance over the last twenty years has been expanding (Galperin, 2012; Spreitzer & Sonenshein, 2003; Vadera, Pratt, & Mishra, 2013), as well as research on the identification of a common factor to constructive behaviours (Cropanzano, Anthony, Daniels, & Hall, 2017; Potočnik & Anderson, 2016; Vadera et al., 2013). It is, therefore, legitimate that studies such as Vadera et al. (2013) try to group, under a single label (constructive deviance), behaviours emerging from established standards and oriented towards change. However, the nature of some of the selected behaviours is also linked to change and innovation related-constructs (CI; Potočnik & Anderson, 2016). Moreover, the specific nature of constructive deviance behaviours and proactive behaviours does not seem to make it possible to group them all under one same label of positive deviance. However, a common interest about change and innovation is found in each of these constructs. Therefore, we propose the existence of two axes relating to constructive behaviours in the CI literature: constructive dark-side (CDS) and constructive bright-side (CBS). We also highlight the fact that the attitudinal approach to deviance remains unexplored and needs to be investigated.

In the present doctoral dissertation we propose the following content:

- In chapter 1 we examine and develop the deviance and proactive literature.
- In chapter 2 we propose to focus on the creation of a normative and deviant attitudinal scale (NDAS) to deal with the dynamic aspect of deviance.
- In chapter 3 we explore the nomological network of deviance by analysing the relationship with it and related constructs. We, therefore, propose the existence of CDS and CBS second order-factors.

- In chapter 4 we analyse the existing relationship between CDS, CBS and their outcomes (affective commitment, well-being, distress and turnover intent) behaviours. We also propose that the implementation of innovation plays a mediating role in the existing relation between CDS, CBS and their outcomes.
- In Chapter 5 we briefly discuss the contributions of each of the previous chapters and then discuss the boundary implications and related outlooks generated by our research work.

To conclude, it is worth pointing out that Chapters 2, 3 & 4 are research articles that are going to be submitted or are being submitted to scientific journals of work psychology and organizations.

Chapter 1 – Literature Review

1.1 Chapter One Schedule

To explore the constructive deviance nomological network (Galperin, 2012; Vadera et al., 2013; Warren, 2003) and its relation with change and innovation related-constructs (Potočnik & Anderson, 2016) we present the related literature in this chapter. We thus assess the concept of deviance in social science, to better explore the modalities of destructive and constructive deviance. Then, we analyse the concept of proactivity and its relationship with constructive deviance and innovation. Finally, we present the objectives of this dissertation.

1.2 Deviance in Social Science

Studies on deviance include disciplines such as management (Bennett & Robinson, 2000; Galperin, 2012; Spreitzer & Sonenshein, 2004; Warren 2003), sociology (Becker, 1963; Bord, 1976; Merton, 1957) and psychology (Doise, 1987; Festinger, Schachter, & Back, 1950; Moscovici, 1979; Moscovici & Mugny, 1987; Schachter, 1951). There is, therefore, an abundant literature to deal with the concept of deviance. There are four main approaches to the subject of deviance (Spreitzer & Sonenshein, 2004): statistics, supra-conformists, reactive and normative. The statistical approach to deviance is the most common and refers to deviance, in the statistical sense, as when individuals engage in behaviours that the majority in a group do not engage (e.g., Clinard, & Meier, 2001; Heckert, 1998). The supra-conformist approach refers to phenomena of excessive conformity to norms and concerns individuals that can be categorized as extremists (e.g., Ewald & Jiobu, 1985; Hughes & Coakley, 1991). The reactive approach is characterized by the implementation of behavioural action of an audience, in response to negative behaviours that have been observed. Finally, the normative approaches focus on the intentional departure from the norm of the group or organization in which the individual evolves, introducing concepts

related to destructive and positive deviance. These are terms for evaluating the underlying intention of its own deviation (Spreitzer & Sonenshein, 2004). In relation to these different approaches, Merton (1949) presents deviance as a modality of social problems in which deviance emerges as a result of a split between social objectives and the means to achieve these ends (the second modality being social disorganization). The nature and intensity of these behaviours births in the reference to hypernorms (Donalson & Dunfee, 1994, 1999; Spreitzer, & Sonenshein, 2004; Warren, 2003), and from the interaction to the regards of oneself (or others) on the so-called deviant behaviour (Becker, 1963; Goffman, 1961). Hypernorms are globally held beliefs and values that are inclusive due to the values and beliefs they encompass and which belong to multiples cultures as well as multiple ethical theories (Donalson & Dunfee, 1999). The intention to carry out the deviant act is also a key factor in the implementation of the behaviour (Robinson & Bennett, 1995; Spreitzer, & Sonenshein, 2004; Warren, 2003). Nevertheless, few researchers proposed that individual deviant behaviour is also due to neglect, lack of knowledge of the rules, or even an impossibility of conforming to the rule (Pesqueux, 2009). The lack of effective communication between the interacting parties would lead to a lack of knowledge of its own deviance perceived by others (Schachter, 1951). However, the deviance act, as we shall study, concerns self-perception as deviant, and therefore it cannot concern individuals who have no awareness of their deviant behaviours or attitudes. According to Mertens, Recker, Kohlborn, & Kummer (2016), deviance can be expressed in behavioural terms, or as an outcome of behavioural actions. We also propose that deviance may concern an attitudinal aspect relating to individuals. The construct relating to deviance can, therefore, be approached by a multitude of approaches. Still, for most definitions and studies before the 21st century, deviance is mostly perceived as negative.

1.3 Destructive Deviance

By definition, deviance behaviour is considered negative or destructive, the same is true in the organizational literature (Bennett & Robinson, 2000; Hollinger & Clark, 1982; Judge, Scott, & Ilies, 2006; Raelin, 1984; Robinson & Bennett, 1995). Destructive deviance refers to behaviour that violates the group norms, or of the reference organization in which the individual evolves (Bord, 1976). From this point of view, the destructive term is similar to the concept of organizational misbehaviour (Vardi & Wiener, 1996), which corresponds to "any intentional action by members of organizations that violates core organizational and/or societal norms" (p. 151). This definition is that of Robinson and Bennett (1995) which presents deviant behaviour as "voluntary behaviour that violates significant organizational norms and in so doing threatens the well-being of an organization, its members, or both" (p. 557). Talking about deviance refers thus to aggressive behaviour; whether direct or indirect, and directed to the organization or individuals. Harassment, destruction of equipment, or failure to observe safety practices are all behaviours that can be linked to this concept (Bennett & Robinson, 2000; Galperin & Burke, 2006; Sagarin, 1975). A significant point of this approach is the voluntary intention to harm its organization and/or colleagues. On the basis of work, analysing the concepts of deviance of ownership and production (Mangione & Quinn, 1974), or differentiating degrees of intensity concerning the processes of rule breaking (Wheeler), Robinson and Bennett (1995) proposed two typologies of deviance: the degree of severity of behaviour (minor / serious) and the behavioural target (organizational / interpersonal). By associating these two aspects, four types of deviations are observable: political deviance, personal aggression, property deviance and production deviance (Figure 1).

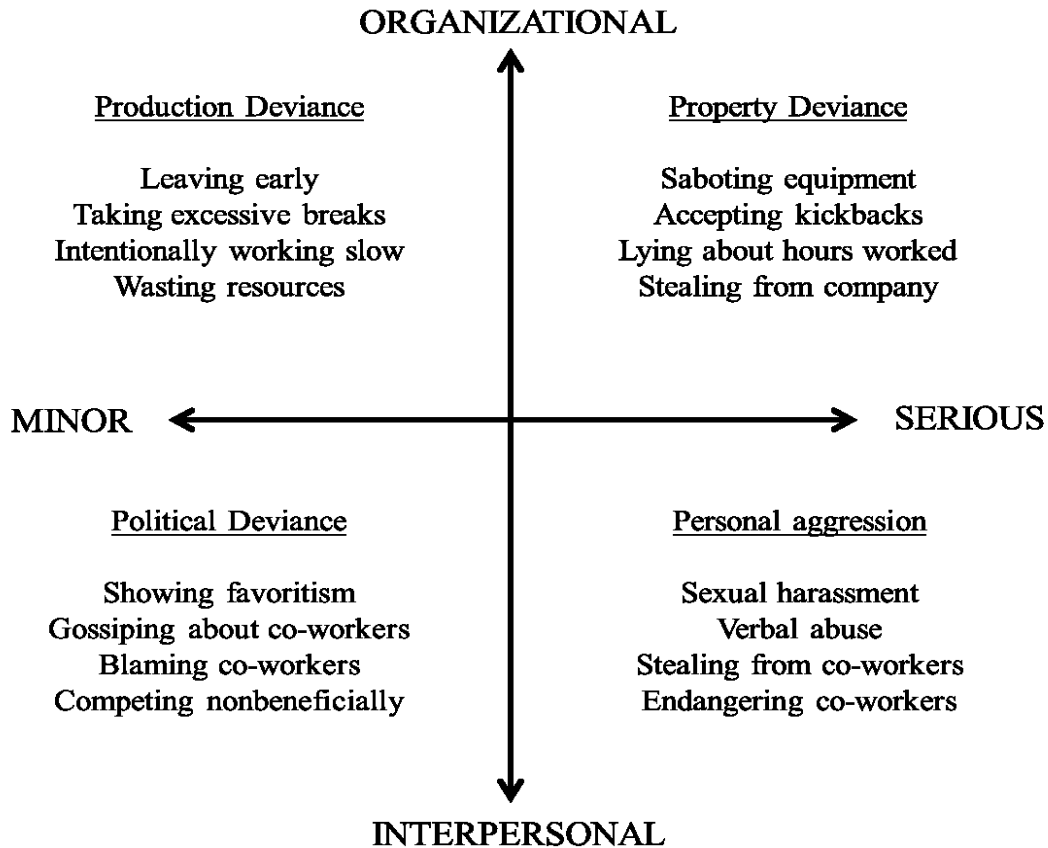


Figure 1.1. Destructive Deviance Behaviour Dimensions (Adapted from Robinson & Bennett, 1995; p. 565).

Some authors, rather than using the term *deviant behaviour* refer to counterproductive behaviours (CWB) defined as a "set of distinct acts that share the characteristics that they are volitional (as opposed to accidental or mandated) and harm or intend to harm organizations and/or organization stakeholders, such as clients, co-workers, customers, and supervisors" (Spector & Fox, 2005). In addition, CWBs, which are listed as a set of behaviours studied via a single dimension (in some case with two dimensions) are specific behaviours that differ from each other, thus having their own antecedents, consequences, and underlying dynamics (Spector et al., 2006). This disparity with respect to negative deviant behaviours informs us about the complexity relative to the nomological network of this theoretical axis (figure 2; Pearson,

Anderson, & Porath, 2005). This approach, although focused on a negative perspective, does not leave exclusivity to the destructive aspect (e.g., Morrison, 2006). Indeed, a situation of rupture is likely to generate behaviours oriented towards the change and the improvement of faulty organizational conditions (Anderson, De Dreu, & Nijstad, 2004; Dehler & Welsh, 1998; Warren, 2003).

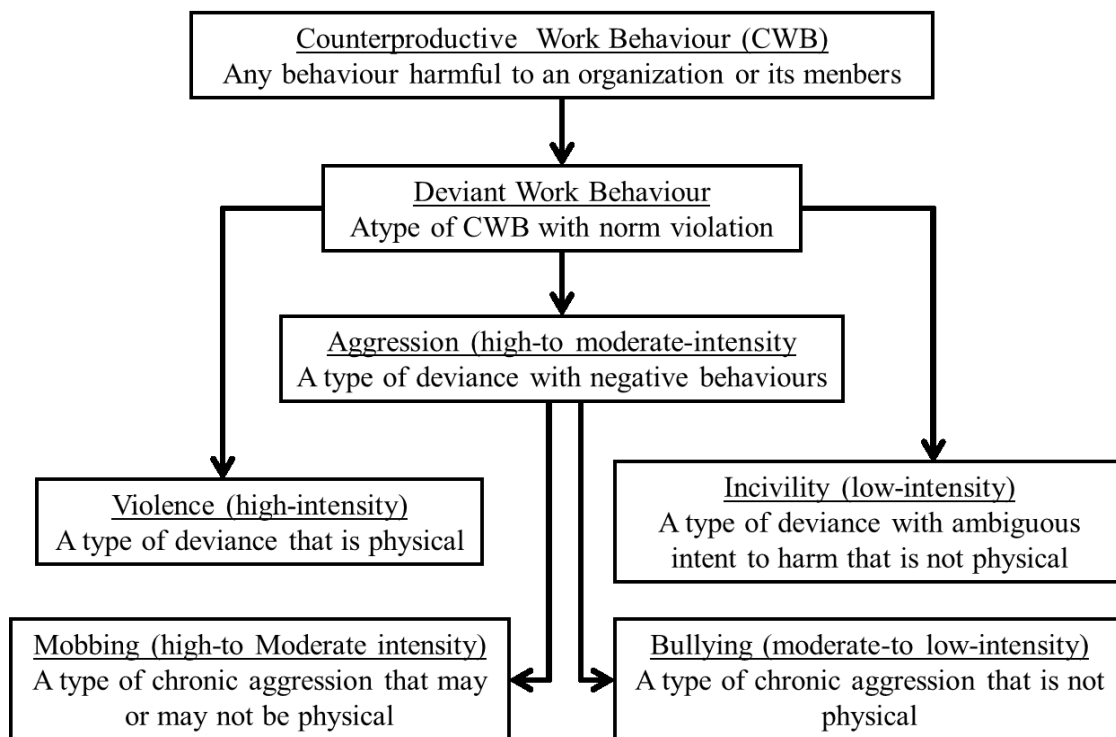


Figure 1.2. Counterproductive Work Behaviours Typologies (Adapted from Pearson et al., 2005; p.191).

1.4 Positive Deviance

Hence, it is a matter of Positive Deviance (for a review see Mertens et al., 2016a). First, in order to exist a positive deviant behaviour it must be known by the higher authorities (Moscovici & Mugny, 1987; Mugny & Perez, 1989; Paicheler, 1985) resulting in a potential conflict that will likely be an exchange vector (De Dreu & Beersma, 2005; Doise, 1987; Moscovici, 1979; Schachter, 1951). The literature lists three major theoretical approaches, the first one presents this concept from a dynamic perspective (Moscovici, 1979; Warren, 2003), the second defines it as the expression of a unique behaviour of constructive deviance (Galperin, 2012) and the third one analyses it as an agglomeration of behaviours (Vadera et al., 2013).

1.4.1 Dynamical Approach

The dynamic approach focuses on the link between deviance and normativity. Deviance would be a process put in place by the individual to solve a problem. This resolution could be carried out in relation to the norms of the group in which the individual evolves, but it could also be expressed by a distance from norms in which he does not recognize himself (Warren, 2003). The "deviants" act outside the beaten path, which is why they can be a source of innovation; the behaviour must be accepted and applied by peers to be perceived as such. Constructive deviance would, therefore, be a process leading to active minorities (Moscovici, 1979). This notion of deviance, if it is perceived as behaviour oriented towards progress and change, by deviating from the organization's standards of reference while conforming to higher standards (Warren, 2003), can be applied to different behaviours and be considered constructive, or innovative (Figure 3). Spreitzer and Sonenshein (2003), introduce the notion of group norm and the specific intention to detach itself from it in an honourable way. They point out that we must distinguish between the honourable and the virtuous since some behaviours relating to virtue are in opposition to the

principle of deviance (Peterson, & Seligman, 2003). It thus depends on the perception of the individual, but also on the working conditions to which he is confronted. The notion of breaking with the team or organizational norms remains a key point in the worker's choice to make a resolution to an element in a normative or deviant manner (Jetten & Hornsey, 2014); which could be in constructive or destructive manners (Acharya & Taylor, 2012; Warren, 2003). It is thus necessary to see deviance not as an act but as a transitory state that leads to the establishment of behaviours. However, this dynamic and evolving aspect of deviance remains little studied.

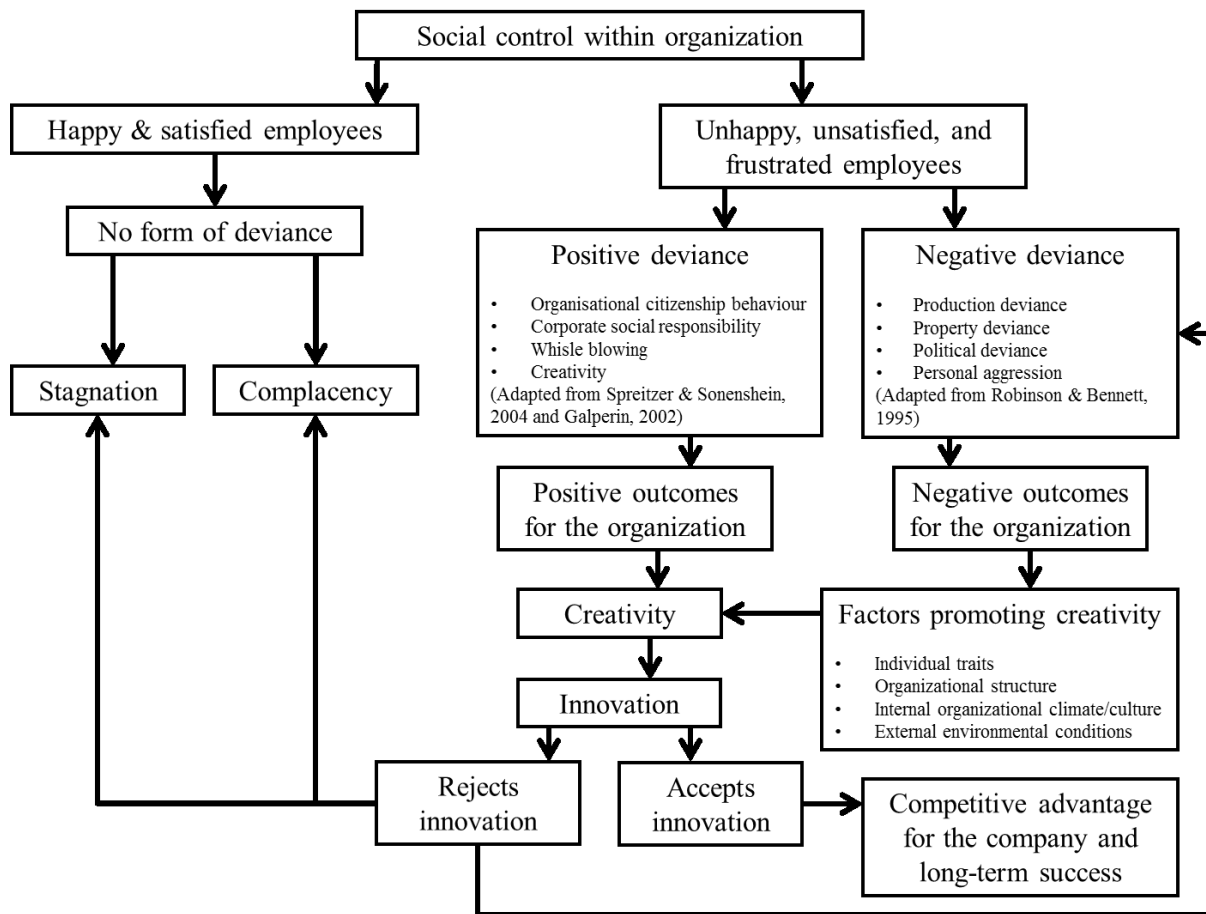


Figure 1.3. Innovative Deviance Process (Adapted from Acharya & Taylor, 2012; p. 52).

1.4.2 Constructive Deviance Behaviour Approach

The behavioural approach introduces constructive deviance as "Voluntary behaviour that violates significant organizational norms and in doing so contributes to the well-being of an organization, its members, or both" (Galperin, 2002). The emergence of this behaviour would be linked to the processes of innovation in an organizational context where individuals want to make a change but would not accept the attribution of an innovative person or would conflict with the goals of the organization (Merton, 1968), this dynamic would lead to the expression of constructive deviant behaviour (Galperin, 2012). This behaviour could also be directed towards three targets (Galperin, 2002; Galperin & Burke, 2006) such as interpersonal interaction (disobedience to orders or alert on mischief in order to bring about positive organizational change), organizational level (defying established norms and breaking rules in order to support the organization), and organizational innovation (ability to seek innovative and non-conventional procedures to help its organization). Recent research has focused on the determinants of behaviours of constructive deviance (e.g., Galperin & Burke, 2006). For example, it has been demonstrated that perceived organizational support played a decisive role in the implementation of the behaviour of constructive deviance, this relationship was even partially mediated by the organizational trust (Kura, Shamsudin, & Chauchan, 2016). In a more divergent way, a theoretical relationship between psychological empowerment and the commitment in bottom-up unofficial projects (presented as a deviant behaviour) by teams in organizations (Buchwald, Urbach, & Mahring, 2015) was assumed (Figure 4). In the same way, a theoretical relationship between idealism, participative decision-making, justice perceptions, and person-organization fit, as antecedents, and constructive deviant workplace behaviour was proposed, where psychological ownership mediated this relationship (Yildiz, Alpkan, Ates, & Sezen, 2015). However, to our knowledge, only one empirically research focused on the relation between constructive deviance

and its outcomes, like performance in this case (Mertens, Recker, Kummer, Kohlborn, & Viaene, 2016b). Although little empirical studies have been carried out, the behavioural aspect is the most examined in the present literature on constructive deviance, and the qualitative method is still the most used method to study the construct (Mertens et al., 2016a).

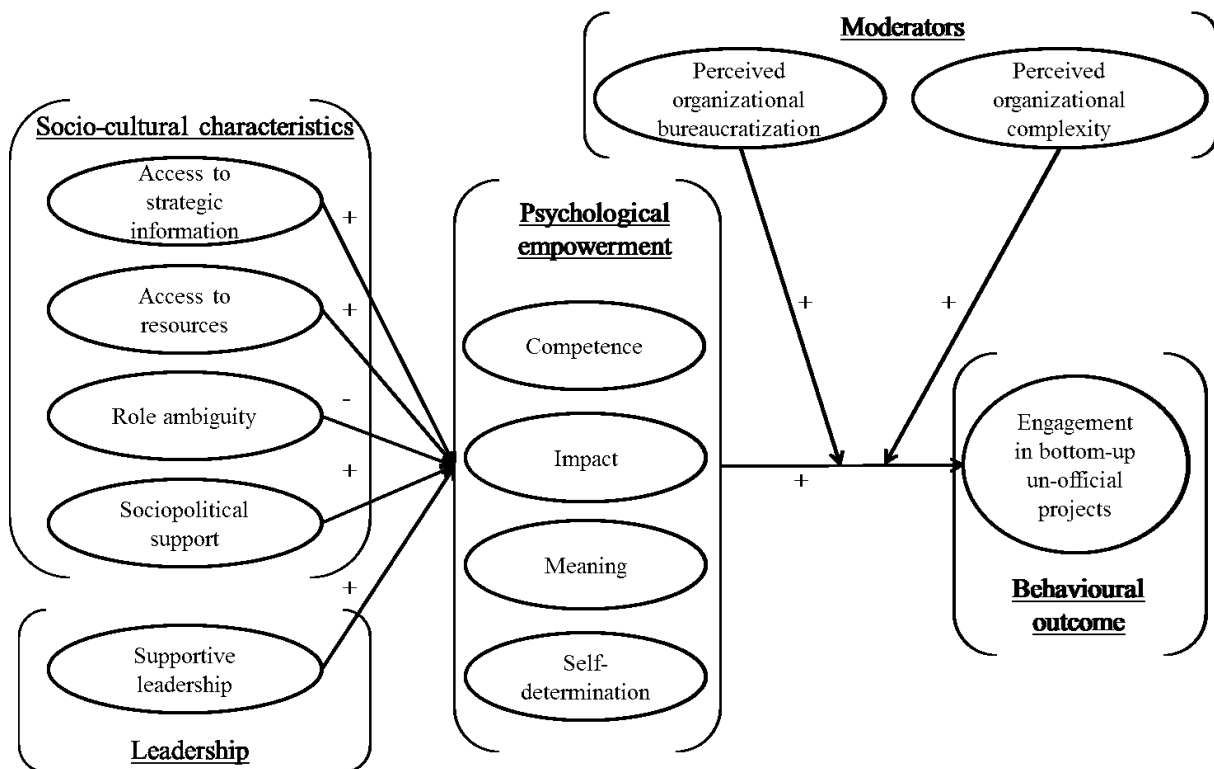


Figure 1.4. Role of Psychological Empowerment on Engagement in Bottom-up Un-Official Projects (Adapted from Buchwald et al., 2015; p.8).

1.4.3 Constructive Deviance as a Behavioural Encompassing Term

Finally, the approach of constructive deviance as an agglomeration of behaviours is studied as "behaviours that deviate from the norms of the reference group such that they benefit the reference group and conform to hypernorms" (Vadera et al., 2013). The notion of higher norms refers to the work of Warren (2003) who proposes to use the term to determine whether the underlying intention of the deviant behaviour is positive or negative. The hypernorms notion, as discussed earlier, refers to higher norms that are likely to transcend organizational, social, cultural norms, and that correspond to norms recognized by all individuals, whether applied or not (see Donaldson & Dunfee, 1999). Constructive deviance is, therefore, a higher factor that gathers behaviours considered as potentially deviant by the literature. Vadera et al. (2013) focus on behaviours that correspond to their definition, thus excluding from their analysis any other behaviour that is not explicitly or implicitly related to their three selection criteria: departure from reference group norms, beneficial to the group of reference, and conformity to hypernorms (for review see Vadera et al., 2013). Thus, they encompass behaviours as taking charge (Morrison & Phelps, 1999), creative performance (Amabile, 1996; Baer, Leenders, Oldham, & Vadera, 2010), voice (Van Dyne & LePine, 1998), whistleblowing (Near & Miceli, 1985), extra-roles behaviours (Van Dyne, Cummings, & McLean Parks, 1995), prosocial behaviours (O'Reilly & Chatman, 1986; Puffer, 1987), prosocial rule breaking (Morrison, 2006), counter-role behaviours (Staw & Boettger, 1990), and issue selling (Dutton & Ashford, 1993) under the umbrella term of constructive deviance. On the basis of the three criteria, it is also possible to introduce, in this behavioural building agglomeration, concepts such as constructive deviance behaviour (Galperin, 2012) and productive nonconformity (Pepinsky, 1961), but also behaviours such as job crafting and innovation (Anderson, Potočnik, & Zhou, 2014), which are likely to come out from the norms to be realized (Anderson, De Dreu, & Nijstadt, 2004). Except for these last four new

constructs, Vadera et al. (2013) propose that this agglomerate of constructs would be predicted by three main antecedents common to each of these concepts of constructive deviance: intrinsic motivation, felt obligation and psychological empowerment (Figure 5).

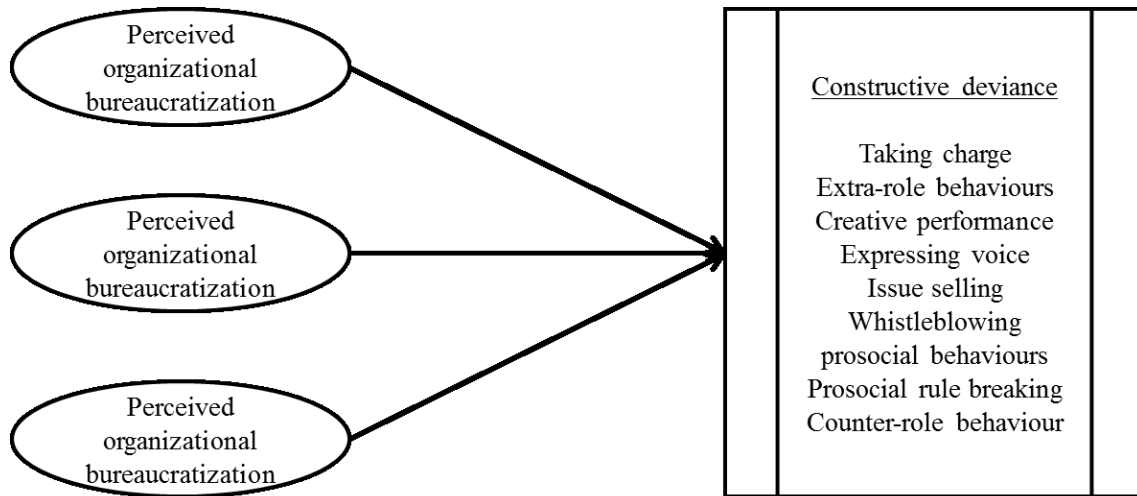


Figure 1.5. Antecedents to Constructive Deviant Aggregate Behaviours (Adapted from Vadera et al., 2013; p. 1248).

1.5 From Deviance to Proactivity

Under this umbrella term, there is a desire to bring out a higher dimension that explains the underlying dynamics common to all of these behaviours. However, several authors have attempted to grasp this higher dimension relating to constructive behaviours (e.g., Vadera et al., 2013). Some authors have addressed this similar construct problem by treating it from a theoretical perspective on extra-role behaviours (e.g., Van dyne et al., 1995), social exchange (Cropanzano, Anthony, Daniels, & Hall, 2017), proactive behaviour (e.g., Parker & Collins, 2010) or change and innovation related construct (Potočnik & Anderson, 2016); with recurring key constructs found in most of these approaches, such as the proactive aspect or organizational

citizenship behaviours. Regarding the theoretical perspective concerning constructive deviance, it is also possible to approach it in the way of proactive behaviours (Vadera et al., 2013) or citizenship (Chowdhury, 2015). We will abandon the latter which is recently starting to be studied (e.g., Dhondt, Rual, & Elizagoyen, 2016) to focus our interest on the aspects relating to proactive behaviours.

1.6 Proactivity Concept

According to Grant and Ashford (2008), proactivity refers to all actions implemented in advance by employees to influence their work, themselves or their environment. Like constructive deviance, the theory of proactivity does not have a single definition, however, unlike constructive deviance, there is an abundant literature dealing with the topic of proactivity. For Crant (2000) this concept covers a multitude of reality and theoretical approaches. He specifies that this theme has been studied in several ways and in disciplines that can be separated from one another. He defines proactive behaviour as “taking initiative in improving current circumstances; it involves challenging the status quo rather than passively adapting present conditions” (p. 436). In the literature on this topic, two main approaches are developed: the personality approach (Bateman & Crant, 1993) and the behavioural approach (Tornau & Frese, 2013). Proactivity has also been studied as a performance dimension (Griffin, Neal, & Parker, 2007), but in view of the items proposed to evaluate it, it refers more to a behavioural approach.

1.6.1 Proactive Personality

Proactive personality referred to the "relatively stable tendency to effect environmental change" (Bateman & Crant, 1993). This approach, firstly named "reacting personality" (Swietlik, 1968), supposes that workers can naturally develop proactive tendency at work, whether the work environment allowed them to be proactive or not, and generate new things. Furthermore,

proactive personality is a stable personal disposition (Crant, 2000; Li, Fay, Frese, Harms, & Gao, 2014) that can not only be reduced to personality traits (Wu & Parker, 2011), it should be considered as a stable antecedent to all the proactive behaviours (Parker & Collins, 2010; Wu & Parker, 2011). While proactive personality has been largely studied, Frese and Fay (2001) developed a similar concept namely personal initiative which is a "work behaviour characterized by its self-starting nature, its proactive approach, and by being persistent in overcoming difficulties that arise in the pursuit of a goal" (p. 134). Similarly, it's composed of two facets: a dimension relating to personality and a second dimension corresponding to the behavioural aspect. Following meta-analysis results (Tornau & Frese, 2013), scales evaluating proactive personality dimensions (Bateman & Crant, 1993) and the personal initiative behaviour/personality (Frese, Fay, Hilburger, Leng, & Tag, 1997) had a high correlation rate, indicating thus a measurement of the same dimension. However, while proactive personality is defined as actions that affect change (Bateman & Crant, 1993), personal initiative also takes interest in the anticipatory and forward-looking dimension of proactivity for the company's interest (Frese & Fay, 2001). Furthermore, the personal initiative takes into account the behavioural aspect of the proactivity construct but excludes the reflexion of the self-beneficial motivation to engage in proactive behaviours (Grant & Ashford, 2008). The personality trait perspective remains not sufficient to apprehend in its entirety the proactivity literature. Hence, it's necessary to explore the behavioural proactivity perspective.

1.6.2 Proactive Behaviours Dimensions

One of the characteristics of proactive behaviour is the direct influence that this behaviour can have on its environment. The mutual influence between the environment, the person, and behaviour (Bandura, 1986), accounts for the non-passivity of people (Buss, 1987). They have a

need to control or to manipulate their environment, which agrees with the notion of proactivity (White, 1959; Langer, 1983). All behaviours refer to personal and/or situational causes (Lewin, 1938). Thus, individuals may decide to change their environment (social or non-social situation, Buss, 1987). Grant and Ashford (2008) argue that employees do not experience events that happen to them without reacting, but "they try to affect, modify, shorten, influence, [and] temper what happens in their lives" (p. 4). They argue that employees play an active role, they try to change / shape their work environment, and they react to events that happen to them by adopting different behaviours. According to Tornau and Frese (2013), the main proactive concepts are proactive personality (Bateman & Crant, 1993), personal initiative (Fay & Frese, 2001; Frese, Fay, Hilburger, Leng, & Tag, 1997; Frese, Kring, Soose, & Zempel, 1996), taking charge (Morrison & Phelps, 1999) and voice (Maynes & Podsakoff, 2014; Van Dyne & LePine, 1998). According to Grant and Ashford's (2008) definition of proactivity, behaviours are necessarily non-prescriptive (O'Reilly & Chatman, 1986; Organ & Konovsky, 1989) and have an observable impact (Griffin, Neal, & Parker, 2007). This is why it is common to find in the literature, under the proactive label, behaviours such as creativity (Amabile, 1997), job crafting (Tims, Bakker, & Derks, 2012; Wrzesniewski & Dutton, 2001), innovative work behaviour (Janssen, 2000 ; West & Farr, 1990), issue selling (Ashford, Rothbard, Piderit, & Dutton, 1998), strategic scanning (Parker & Collins, 2010) and feedback seeking (Anseel, Beatty, Shen, Lievens, & Sackett, 2015; Ashford & Black, 1996). Hence, the behavioural aspect of proactivity encompasses an agglomeration of various and varied behaviours (Table 1.1), but all have a proactive process.

1.6.3 Proactive Higher Order Factors and the Dynamical Approach

Moreover, a classification into three main categories of proactive behaviours (Table 1.1) has been proposed (Parker & Collins, 2010) grouped under the label of "proactive work behaviour", constructs like taking charge, voice, individual innovation (Scott & Bruce, 1994), and problem solving (Frese & Fay, 2001). The "proactive strategic behaviour" dimension encompasses the constructs of strategic scanning, the issue selling credibility, and willingness. Finally, the last factor is labelled the "proactive person-environment fit behaviour" and is composed by constructs as feedback inquiry (Ashford & Black, 1996; Ashford, Blatt, & Van de Walle, 2003), feedback monitoring (Ashford & Black, 1996), job change negotiation (Ashford & Black, 1996; Nicholson, 1984) and career initiative (Seibert, Kraimer, & Crant, 2001; Tharenou & Terry, 1998). Analysis results showed similarities and differences in the antecedents of all of these behaviours, indicating that similarities between these behaviours encompass different factors which are also different. Over the last decades, research on proactivity focused specifically on models that could explain the enactment of proactive behaviours (Wu & Parker, 2011) and studied antecedents and motivational mechanisms (Parker, Williams, & Turner, 2006) that induce the generation and the implementation of proactivity (e.g., Grant & Parker, 2009). Based on their literature review, Grant and Ashford (2008) introduced an integrative model of the principal situational antecedents, dispositional moderators, and psychological mechanisms conducting proactive behaviours and their consequences (Figure 1.6). As for the concept of constructive deviance, according to a recent call for papers of different reviews, few studies have analysed the outcomes of proactive behaviour (e.g., Parker, et al., 2006; Strauss, Griffin, Parker, & Mason, 2015; Strauss, Griffin, & Rafferty, 2009).

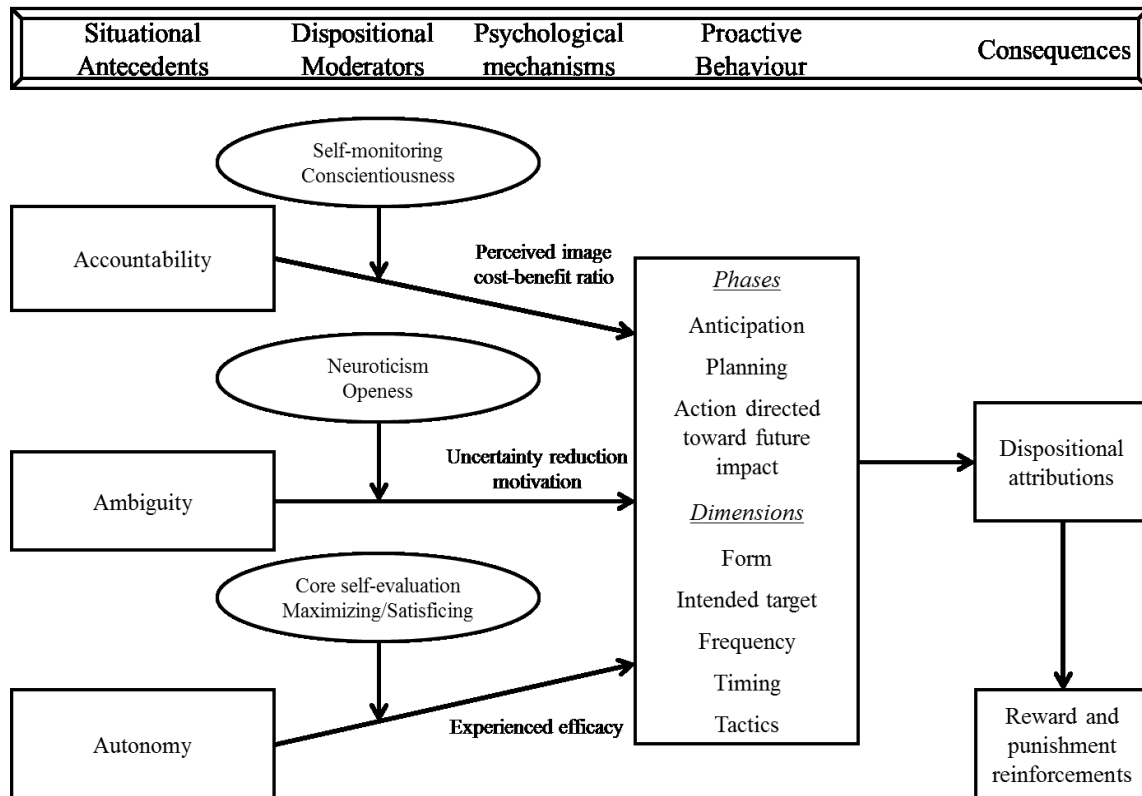


Figure 1.6. Proactivity dynamics framework (Adapted from Grant & Ashford, 2008; p.13).

1.7 Analysis of Higher Dimension Encompassing Deviant and Proactive Behaviours

As we have seen previously, there is a myriad of behaviours that can be grouped under common labels (Table 1.1; see Cropanzano et al., 2017) through constructive deviance (Vadera et al., 2013), proactivity (Parker & Collins, 2010), or change-related processes and innovation (Potočnik & Anderson, 2016). Indeed, whereas the literature of work and organizational psychology increases, there is a growing number of behaviours in which employees, teams, or organizations try to invest for changing and innovating (Anderson et al., 2014). However, regardless of the given labels, researchers agree on several points. As Parker and Collins (2010) did, it is necessary to study the construct validity of each of these behaviours in order to be able to distinguish them from each other. Potočnik and Anderson (2016), through the study of the relationship with innovative behaviour, highlighted three major similarity biases that affect the

construct clarity between similar behaviours. These concerned a construct confusion, "studies that used different terms fully interchangeable and/or have failed to operationalize their key dependent variable(s) with sufficient clarity", the construct drift, "occurs where a number of studies over the years have incrementally moved the construct space under investigation", and the construct contamination, "occurred where researchers have borrowed elements of other terms and definitions to both inform and supplement their own formulation of a particular construct" (p. 489). It is, therefore, wise to consider the theoretical proposition of Vadera et al. (2013) that include proactive, extra-role, and deviant behaviours under one label. A specific analysis of the antecedents and/or consequences common to each of these behaviours is then paramount, whether at the organizational, team or individual level. By analysing deviant behaviours and proactivity we propose to explore the supposed similarities between several of these key behaviours (Potočník & Anderson, 2016; Vadera et al., 2013).

Table 1.1. *Definitions of the Theoretical Relative Construct Encompassing Constructive Deviance, Proactivity, Change and Innovation*

Assimilate behaviours	Principals Authors	Definition-example	Theoretical relative construct			Thesis material	
			Vadera et al. (2013)	Parker and Collins (2010)	Potočnik and Anderson (2016)	Thesis translated construct	Analysed construct
Constructive deviance behaviour	Galperin (2002)	"Voluntary behaviour that violates significant organizational norms and in doing so contributes to the well-being of an organization, its members, or both".				YES	YES
Prosocial rule breaking	Morrison (2006)	"Intentional violation of a formal organizational policy, regulation, or prohibition with the primary intention of promoting the welfare of the organization or one of its stakeholders".	YES			YES	YES
Counter-role behaviours	Spector and Fox (2005)	"[...] set of distinct acts that share the characteristics that they are volitional (as opposed to accidental or mandated) and harm or intend to harm organizations and/or organization stakeholders, such as clients, co-workers, customers, and supervisors".	YES				
Whistleblowing	Near and Miceli (1985)	"The disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action".	YES			YES	
Extra-role behaviours	Van Dyne, Cummings, and McLean Parks (1995)	"Behaviour which benefits the organization and/or is intended to benefit the organization, which is discretionary and which goes beyond existing role expectations".	YES		YES		YES
Prosocial behaviours	O'Reilly and Chatman (1986)	"Behaviour that is (a) performed by a member of an organization, (b) directed toward an individual, group, or organization with whom he or she interacts while carrying out his or her organizational role, and (c) performed with the intention of promoting the welfare of the individual, group, or organization toward which it is directed".	YES				
Innovation	West and Farr (1990)	"The intentional introduction and application within a role, group or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, the organization or wider society".			YES	YES	YES
Creativity	Amabile (1997)	"The production of novel and useful ideas".	YES		YES		
Job crafting	Wrzesniewski and Dutton (2001)	"The physical and cognitive changes individuals make in the task or relational boundaries of their work".			YES	YES	
Personal initiative	Fay and Frese (2001)	"Personal initiative is a behaviour syndrome resulting in an individual's taking an active and self-starting approach to work and going beyond what is formally required in a given job".			YES		
Submitting suggestion	Ekvall (1971)	"An administrative procedure for collection, judging, and compensating ideas which are conceived by employees of the organization".			YES		

Table 1.1. (Continued)

Assimilate behaviours	Principals Authors	Definition-example	Theoretical relative construct			Thesis material	
			Vadera et al. (2013)	Parker and Collins (2010)	Potočnik and Anderson (2016)	Thesis translated construct	Analysed construct
Feedback seeking	Ashford and Black, 1996	"[...] newcomers proactively attempt to gain feelings of personal control during organizational entry and examined their longitudinal effects on self-reported performance and satisfaction in a sample of organizational newcomers".				YES	
Taking charge	Morrison and Phelps (1999)	"Voluntary and constructive efforts, by individual employees, to effect organizationally functional change with respect to how work is executed within the contexts of their jobs, work units, or organizations".	YES	YES ^a	YES	YES	YES
Voice	Van Dyne and LePine (1998)	"Making innovative suggestions for change and recommending modifications to standard procedures even when others disagree".	YES	YES ^a	YES	YES	YES
Individual innovation	Scott and Bruce (1994)	"Behaviors involved in the creation and implementation of ideas, including identifying an opportunity, generating new ideas or approaches, and implementing the new ideas".		YES ^a			
Problem solving	Frese and Fay (2001)	"Self-directed and anticipatory action to prevent the reoccurrence of work problems".		YES ^a			
Strategic scanning	Parker and Collins (2010)	"Proactively surveying the organization's environment to identify ways to ensure a fit between the organization and its environment, such as identifying ways the organization might respond to emerging markets or actively searching the environment for future organizational threats and opportunities".		YES ^b			
Issue selling credibility	Dutton and Ashford (1993)	"Influencing the formation of a strategy in organizations by making others aware of particular issues".	YES	YES ^b			
Issue selling willingness	Ashford, Rothbard, Piderit and Dutton (1998)	"Influencing the formation of a strategy in organizations by giving the time, energy, and effort into behaviors to ensure key decision makers in the organization know the issues".	YES	YES ^b			
Feedback inquiry	Ashford and Black (1996)	"Directly asking for feedback from others".		YES ^c			
Feedback monitoring	Ashford and Black (1996)	"Using as feedback the information obtained from actively monitoring the situation and others' behavior".		YES ^c			
Job change negotiation	Ashford and Black (1996)	"Explicit attempts to change one's job so that it better fits one's skills and abilities".		YES ^c			
Career initiative	Seibert, Kraimer, and Crant (2001)	"Individual's active attempts to promote his or her career rather than a passive response to the job situation as given".		YES ^c			

Note. ^a Proactive work behaviour dimension, ^b Proactive strategic behaviour dimension, ^c Proactive person-environment fit behaviour dimension.

1.8 Objectives of the Dissertation

To accomplish this last task, we first explored dynamic aspects of deviance to determine whether there's actually a difference between the behavioural and dynamic approach. However, no measure can be used to analyse deviant attitudes in organizational situations. Therefore, we created a measure to evaluate attitudes of deviance, but also of conformity. Validation of this measure allowed us to explore the differences of construct between the attitudinal and behavioural aspects, but also to explore relationships between conformity attitudes and behaviours such as voice. In a second step, we first selected key behaviours to be analysed (Table 1). Most of these variables are measured using Anglo-Saxon tools, according to the recommendations of Brislin (1970), we translate the selected measure. Following the translations, we collected the data allowing us to test the validity of the selected measure. In order to avoid similarity biases and a large number of items, we collected data in two steps, with an average delay of 2 weeks between the first two collection times. We also carried out the translation and validation proposal into the French language of the measure developed by Galperin (2012) concerning constructive deviant behaviours. We have thus been able to test the existence of a second-order factor combining proactive and deviant behaviours. Following the results of the second study, two second-order factors were observed. Hence, six months after the first data collections, we started a third measurement time to collect more data and study common outcomes of the two higher dimensions. Following the results, we were able to analyse the relationship between deviant and proactive behaviours, and their outcomes, as well as the mediating role of innovation implementation behaviour in this relationship.

All the results obtained in these different studies are discussed in the following chapters, allowing us to shed light on a segment of the literature that's being increasingly studied. Finally,

these activities also allow us to bring new questions about the observable underlying links between the multitudes of constructive behaviours examined nowadays.

Chapter 2 – Article 1**Normative and Deviant Attitudinal Scale (NDAS) Adapt to Organizational Context: a French Statistical Validation****Abstract**

Deviance theory introduces a behavioural view on constructive and destructive deviance, it explains how an individual intent can harm or improve the organizational well-being. However, to our knowledge, no scale exists that evaluates the attitudinal aspect of deviance and normativity. The purpose of this study was to create the normative and deviant attitudinal scale (NDAS), and to study the psychometric properties of the instrument using data from 615 workers. NDAS exploratory analysis showed as a final result a 12-item scale composed of four factors: normative conformity, normative rule respect, deviant performance, and deviant initiative. Confirmatory factor analysis corroborates the factorial structure in four sub-scales. Convergent and discriminant validity indicated that deviant dimensions are positively related to voice, cognitive flexibility and deviant behaviours, whereas normativity dimensions are negatively or not related to these behaviours. Furthermore, opposite relations between conformity construct and the four factors are observed. Practical implications and suggestions for the development of future research on constructive deviance theory are discussed.

Keywords: normativity, deviance, attitude, convergent validity, discriminant validity

2.1 Introduction

The theme of deviance in the literature of work and organizational psychology has been largely studied (e.g., Bennett & Robinson, 2000; Spreitzer & Sonenshein, 2004). This construct is generally addressed by studying its behavioural dimension (Robinson & Bennett, 1995; Galperin, 2012; Vadera, Pratt, & Mishra, 2013), neglecting its attitudinal aspects. In a current climate of change and innovation, it is essential to be able to determine which factors facilitate the implementation of change and innovative behaviour, and whether these constructs are similar or not (Potočnik & Anderson, 2016). Therefore, the factors relating to deviant and normative attitudes must be studied, and, in order to do so, a scale allowing the evaluation of these different attitudes, and their effect on the implementation of constructive behaviours, is essential. However, no study adapted to the workplace offers tools for assessing normativity and deviance under an attitudinal point of view. Based on the works of Moscovici (1979, 1984) and Warren (2003) we propose to develop French normative and deviant attitudinal scale (NDAS) adapted to the organizational context. This article consists of testing and validating the NDAS with French workers.

2.2 Towards the Attitudinal Deviance and Normative Approach

Scholars generally approach the deviance construct by two streams of research, the negative side (e.g., Judge, Scott, & Ilies, 2006) and the positive side (e.g., Galperin, 2012). The first one, the most studied, is defined as a “voluntary behaviour that violates significant organizational norms and in so doing threatens the well-being of an organization, its members, or both” (Robinson & Bennett, 1995; p. 557) and it’s labelled as destructive deviant behaviour. It includes several constructs from stealing (Bennett & Robinson, 2000) to withdrawal (for a review see Spector et al., 2006). The second stream is related to “voluntary behaviour that violates

significant norms with the intent of improving the well-being of an organization, its members or both" (Galperin, 2002) and is defined as constructive deviance (for a review see Mertens, Recker, Kummer, Kohlborn, & Viaene, 2016). The latter can be, for example, characterized by breaking the rules to help a co-worker (Dahling, Chau, Mayer, & Gregory, 2012).

These theoretical perspectives proposed only an exploration of the deviant side and do not take into consideration the normative aspect. As presented by Warren (2003), to studying deviant behaviours, it is necessary to also analyse the normative opposite aspect. In management research, norms are defined as regular behaviour patterns that are relatively stable and expected by group members (Bettenhausen & Murnighan, 1991; p. 21). As mentioned by Warren (2003), in the actual constructive deviant literature it is common to refer to hypernorms (Donaldson & Dunfee, 1994, 1999) to avoid problems caused by the informal norms and formal norms, and the specificity of normality (Axelrod, 1986). For example, in the case where an entire company endorse informal norms that conscientiously break the law, illegal behaviours are perceived as normal (Brief, Buttram, & Durkeich, 2001); despite the fact that all the company consciously violate the law. Therefore, the reference to hypernorms makes it possible to refer to metanorms specific to human values and beliefs (Sherif, 1936; Donaldson & Dunfee, 1999) to determine positive or negative behaviours, whether normal or deviant.

In the goal to analyse normativity and deviance, we propose to focus on the attitudinal aspect of these constructs that, to our knowledge, are not developed in the management literature. Using the theories from social psychology (e.g., Levine & Zdaniuk, 1984; Moscovici, 1984; Moscovici & Mugny, 1987), we propose to look at these constructs and focus the studies on the relationship between normative and deviant attitudes. This approach differs from the current literature on deviant and normative behaviours, since it does not imply a notion of good or evil, and therefore does not refer to hypernorms. Indeed, we are interested in the attitudinal aspect

deviant or normative, which corresponds to the general tendency of individuals to respect or not the rules, to conform or not, to try to optimize its performance or to take initiative, even if it means deviating from formal or informal norms.

However, whether the study is concerned with the normative aspect, few studies used scales for their research (Kirton, 1976; Reysen, & Branscombe, 2008) preferring experimental procedures (e.g., Asch, 1956; Hackman, 1992; Moscovici, 1979); and only scales with behavioural dimensions are developed for the deviant dimension (e.g., Dahling et al., 2012; Spector et al, 2006). One of the aims of this research is to develop a scale adapted to the organizational context which can be used by both scientists and practitioners. In this way, we created the NDAS, a four-factor measure composed of two normative dimensions and two deviant dimensions. Concerning the normative aspect, the existence of two factors (*conformity* and the *respect of rules*) fit with the organizational context. The attitude to *conformity* has been largely studied and occurs when an individual modifies his attitude in order to bring it more in line with the attitude of a group (e.g., Crutchfield, 1955, Levine & Zaniuk, 1984; Moscovici, 1984). The attitude of *respecting rules* is related to the propensity of individuals to respect, or not, the organizational rules (Morrisson, 2006; Zhou, 1993). Each of the dimensions of the normative construct is a component of the normative dimension. Regarding the deviant dimension, the two factors are *seeking for performance* and *initiative*, which can both lead to destructive and/or constructive outcomes (Galperin, 2002; Warren, 2003). Attitudinal deviant performance refers to the propensity of individual to seek efficiency and better performance with no care for the respect of rules or norms (see Mertens et al., 2016). Attitudinal deviant initiative refers to the individual tendency of the worker to try to act in advance of events, with no regards for the rules.

2.3 Convergent and Discriminant Validities

In the absence of much existing research on the normative and deviant attitudes in the organizational context, we focus our attention on the positive deviance behaviours literature (Dahling et al., 2012; Galperin, 2012; Vadera et al., 2013; Warren, 2003). Based on this, we suppose a positive and negative relation with several behaviours. Thus, we choose to examine the relationship between the NDAS four factors and similar or opposite behaviours.

Conformity is the first variable that we propose to examine, according to the literature it should be positively related to normative constructs and negatively to deviant constructs (Moscovici & Mugny, 1987; Warren, 2003). Exploring the relationship between conformity and the NDAS factors should inform us about the validity of the scale.

The second construct that we examined refers to cognitive flexibility. Indeed, the cognitive flexibility supposes that individual with high levels of flexibility are more attentive, more perspicacious, and more receptive, but also more capable of testing new methods of social interactions (Martin & Anderson, 1998). High levels of cognitive flexibility predict a good capacity to consider problems, or solutions, under new views, which facilitate the generation of alternative ideas (Thurston & Runco, 1999; Binard & Pohl, 2014). This propensity to consider new ways of thinking is characteristic of cognitive flexibility (Martin & Ruben, 1995), opposing the concept of normativity (Reysen & Branscombe, 2008), and so should predict a negative relation with the NDAS normative factors. Concerning the deviant aspect of the NDAS, cognitive flexibility is related to deviant behaviours by its specificity to consider possible alternative actions (Martin & Ruben, 1995), and thus, act in ways that depart from the norm to be more constructive (Cândido-Custodio & Pohl, 2016). So, the relationship with the two NDAS deviant factors and cognitive flexibility should be positive.

Prosocial rule breaking (PSRB; Dahling, et al., 2012) and constructive deviance (Galperin, 2012) are constructs of positive deviance (Morrison, 2006; Spreitzer & Sonenshein, 2004). The first behaviour takes three deviant organizational paths: (1) the effectiveness of achieving a task, (2) aiding another employee, and (3) providing better customer service. The second behaviour is composed of two factors, interpersonal deviance (oriented to the interaction with co-workers, customers, and/or supervisor) and organizational constructive deviance (specific to the violating behaviours directed towards the organizational context). Following Warren (2003), the five factors that composed the PSRB and constructive deviance should be positively related to the two deviant attitudes factors (*seeking for performance* and *initiative*) and negatively related to the two normative factors (*conformity* and the *respect of rules*). The relationship should highlight us on the disparity between the attitudinal and behavioural path, and show us if there's an attitudinal conception of deviance.

Voice is the last proposed variable that we used to explore the relationship with NDAS. Voice behaviour can be driven by two different intents (Maynes & Podsakoff, 2014), promotive forms (supportive and constructive aspects) and prohibitive forms (defensive and destructive aspects). It is perceived as a proactive act (Parker & Collins, 2010) to speak about an event and share opinions about it (Van Dyne & Lepine, 1998). In certain circumstances, voice behaviour refers to the necessity to depart from the norms (Vadera, et al., 2013) to induce change and innovation (Potočnik & Anderson, 2016) and, thus, we suppose two relationships: a positive one with deviant attitudes, and a negative one with normativity, which implies more discretionary behaviours. However, the theoretical non-polarity of the NDAS also supposed a positive link with the prohibitive forms of voice behaviours. Studying the relationship between voice behaviours and NDAS factors should highlight the fact that attitudinal deviance and normativity could be related to other behaviours and not only deviant constructs.

2.4 Method

In this study, we followed a multiphase analysis process (Hinkin, 1995). First, a review of the theory and the measures of the deviance and normativity processes was used to generate the measure items; the generated items were submitted to expert evaluation. Second, based on the expertise evaluation of the items, we test the item pool reliability results and internal scale consistency, using exploratory factor analysis (EFA), leading to the final NDAS. Third, we conducted a confirmatory factor analysis (CFA) on the four-factor structure and analysed their relationship with similar theoretical constructs by performing correlations and a CFA. Analyses were conducted using *Mplus 7.4* (Muthen & Muthen, 2015).

2.4.1 Study 1: Item Generation

According to recommended procedures (e.g., De Vellis, 1991, 2003), during the generation phase, we oversampled the number of items to capture separately the four constructs domains thus, reducing to three-to-four-item sub-scales (Hinkin, 1995; Little, Lindenberger, & Nesselroade, 1999). We formulated a large pool of items and asked experts in the field of work and organizational psychology to ensure the items' clarity, redundancy, and adequate representation of the constructs. Based on the experts' feedback, we deleted and modified several items and finally, we conserved 20 items from the initial pool (five for each dimension).

2.4.2 Study 2: Exploratory Factor Analysis

2.4.2.1 Method

Using the 20-item pool we administered the questionnaire to employees ($N = 311$) that worked either full time or part time. We recruited them by the use of a social-network. The sample was essentially composed of women (88%) that worked, for the most of them, in the private sector (50.8%). Each of the respondents was taking classes at universities in France and sixty-six percent of them had completed a bachelor's degree. The sample was ranged in age from 18 to 55 years ($M = 24.66$, $SD = 5.78$) with a mean job tenure of 24.2 months. Anonymity of the participants was assured. Finally, respondents were asked to read each item carefully and indicate, by the use of a Likert scale from 1 (strongly disagree) to 5 (strongly agree), the extent to which they agreed that the items described their workplace attitudes. An example item is "I tend to use new organizational methods if they are approved by the company".

2.4.2.2 Results

To assess the factor structure, we used EFA (Thompson, 2004) with maximum likelihood method and geomin rotation. We opted to use an oblique rotation (geomin) according to our theoretical expectations that the different attitudes of deviance and normativity were interrelated (Tabachnik & Fidell, 2012). Internal consistency was measured using Cronbach's alpha. Item analysis indicated that seven items had a total scale factorial correlation of less than .30, following Nunnally and Bernstein's (1994) recommendations these items were deleted. Based on these analyses 13-items remained.

Table 2.1. *Normative and Deviant Attitude Scale Items and Factor Loadings (N = 311)*

Items	Factor			
	Normativity		Deviance	
	Conformity	Rule respect	Performance	Initiative
To ensure tranquillity, I prefer to conform to the group's point of view. <i>Je préfère me conformer à l'avis du groupe pour assurer ma tranquillité.</i>	.74	-.08	-.02	-.08
I prefer to conform to the group's choice whether I have an opinion or not on a matter. <i>Que j'ai ou non un avis sur n'importe quelle question je préfère me conformer au choix du groupe.</i>	.54	.02	-.02	-.11
I avoid conflicts by conforming to the group <i>J'essaie d'éviter des conflits possibles en me conformant au groupe.</i>	.66	.11	-.00	.07
I abide to my supervisor's ways of doing things even though I find them inadequate <i>J'essaie d'utiliser des démarches définies par mon superviseur même si elles me paraissent inadéquates.</i>	-.01	.74	.06	-.12
I will follow an organizational rule, even if it seems pointless. <i>Si une règle organisationnelle me paraît inutile, je tente de l'appliquer tout de même.</i>	.02	.66	-.15	-.00
I try to conform to organizational decisions even if I disagree with them. <i>J'essaie de me conformer aux décisions organisationnelles même lorsque je suis en désaccord avec celles-ci.</i>	.03	.67	-.07	.06
I try to disagree as little as possible with my colleagues. ^a <i>Je tente d'être le moins possible en désaccord avec mes collègues.^a</i>	.41	.18	.13	.03
I tend to break some organizational rules, in order to me more efficient. <i>J'ai tendance à transgresser certaines règles organisationnelles pour être plus efficace.</i>	-.03	.05	.79	.00
I do not hesitate to break some organizational rules when I perceive that they hinder my performance. <i>Je n'hésite pas à transgresser certaines règles organisationnelles lorsque j'estime qu'elles diminuent mon efficacité.</i>	.02	-.04	.81	-.03
I tend to break organizational rules that I find pointless <i>J'ai tendance à transgresser les règles organisationnelles qui me paraissent défailantes.</i>	-.01	-.24	.50	.11
If I think there is a better way of doing things compared to what the group proposed, I am not shy of sharing my ideas. <i>Si j'estime que l'on peut agir différemment de ce qui est proposé par le groupe, j'essaie de le faire savoir.</i>	-.03	.01	-.00	.86
I try to tell my supervisors when I see shortcomings in the directions he gives me. <i>J'essaie de faire part à mon superviseur des défailances que je perçois dans les consignes qu'il me donne.</i>	-.01	-.02	-.00	.49
I try to bring new work practices that have not been used by my colleagues. <i>J'essaie d'apporter de nouvelles pratiques de travail non utilisées par mes collègues.</i>	.03	-.12	.11	.38
Eigenvalues	4.17	1.59	1.39	1.07
% variance explained	32.17	12.23	10.76	8.21

Note. Primary loadings are in bold. ^aItem not include in final measure. All items were administered in French, English translations for communication purposes.

The expected dimensionality was confirmed by the results of the EFA, indicating a four-factor solution with respective eigenvalues from 4.17 to 1.07, and a total explained variance of 63.37% (see table 1).

Our interpretation of the factors indicates that the first and second factors are subscales of the normativity dimension, and the third and fourth factors are subscales of the deviance dimension. The first factors represent the attitude to conformity, the second represent the inclination to respect rules, the third represent the tendency to deviate from norms and rules to be efficient, and the last ones represent the propensity to try to deviate from taking initiative. Three of these subscales have adequate reliabilities results (table 2), only the deviant initiative dimension has a lower score ($\alpha = .61$). Despite the fact that the conventional accepted minimum is .70 (see Peterson, 1994), lower levels of score reliability can be tolerated in latent variable method analysis if the sample size is sufficiently large (Kline, 2016; Little et al., 1999). Further analyses were required for extracting the construct validity of this scale.

Table 2.2. *Factor Correlation Matrix, Mean, Standard Deviations and Reliabilities (N = 311)*

	<i>M</i>	<i>SD</i>	1	2	3	4
1. Conformity	3.07	.78	(.71)			
2. Rule respect	2.95	.87	.50**	(.77)		
3. Performance	2.98	.96	-.20**	-.40**	(.78)	
4. Initiative	3.76	.78	-.33**	-.26**	.25**	(.61)

Note. ** $p < .01$; Number in parentheses are the Cronbach's alpha scores.

2.4.3 Study 3: Confirmatory Factor Analysis and Convergent/Discriminant Validity Assessment

As specified by Brown (2015), “CFA is an indispensable analytic tool for construct validation in the social and behavioural sciences. The CFA results can provide compelling evidence of the *convergent* and *discriminant validity* of theoretical constructs” (p. 2); convergent validity refers to a high correlation between similar theoretical constructs and discriminant validity supposes that different concepts are not highly interrelated. Furthermore, where EFA is exploratory, the CFA implies prior research evidence or specific theoretical expectation. In line with Byrne (2012) and Kline’s (2016) recommendations to interpret the model-fit indices, the root mean square error of approximation (RMSEA; Steiger, 1990) and the RMSEA 90% confidence interval (Cheung & Rensvold, 2002), the chi-square value and degree of freedom, the comparative fit index (CFI; Bentler, 1990), the Tucker-Lewis index (TLI; Tucker & Lewis, 1973), the Standardized root mean square residual (SRMR) and the Akaike information criterion (AIC; Akaike, 1987; Bozdogan, 1987), were examined. We also followed the Cheung and Rensvold (2002) recommendations and did not take care of the $\Delta\chi^2$ analysis (Satorra & Bentler, 1988) that is considered as an unrealistic criterion for determining equivalence between models. We preferred the use of the difference between TLI and CFI values (Δ TLI, Δ CFI). Briefly, for the RMSEA and SRMR, a value of less than .08 indicates an acceptable fit (Browne & Cudeck, 1993), a value of .06 or less indicates a good fitting model (Hu & Bentler, 1999), and a value smaller than .05 indicates very close fit (MacCallum, Browne, & Sugawara, 1996). For the CFI and TLI, the general rule is to accept a value greater than .90 for an acceptable model and a value of .95 for a good-fitting model (Hu & Bentler, 1999). A significant difference in fit would imply a Δ TLI and Δ CFI larger than .01 (Cheung & Rensvold, 2002). Hence we conducted CFA testing from our 13-item model results.

2.4.3.1 CFA of the Normative and Deviant Attitudinal Scale

2.4.3.1.1 Method

The sample ($N=304$) was composed by workers from different organizations and different sectors like health (26%), social (22%), administration (18%), commerce (17%), research (11%) and industry (6%). The majority of the respondents were women (84%), working in the private sector (51%), with an average organizational tenure of four years and an average age of thirty-five years ($SD = 11$). Some of the participants were supervisors (32%) and most of them worked in several teams (89%). The final version of the NDAS used the same instruction and 5-Likert scale that the one used in study two.

2.4.3.1.2 Results

A CFA was performed in order to examine the four-factor structure of the 13-item scale obtained in the EFA analysis. Data were approximately normally distributed, thus, we used robust maximum likelihood estimation. However, the Kurtosis and Skewness were within the $|2|$ absolute value (Tabachnik & Fidell, 2012). To perform better fit indices and better fidelity, we deleted the item number 7 that was a problematic item (Table 1; Anderson & Gerbing, 1988). To assess the internal validity we tested the new 12-item four-factor structure obtained by the EFA from study 2, and compared it with four alternative models (Table 3). The first alternative model (1) was composed of three factors in which performance and initiative subscale were independent, and normativity dimensions composed one unique factor. The second alternative model (2) integrated the two deviant factors as one, and the conformity and rule respect were independents. The third alternative model (3) was composed of two factors in which respect for rules and conformity were combined into one normative factor, and performance and initiative

were combined into one deviant factor. Finally, the fourth alternative model (4) was one factor composed by all the item of the four subscales.

Table 2.3. *Fit statistic of the Initial and Alternative Models*

Model	χ^2	df	RMSEA	RMSEA 90% CI	CFI	TLI	SRMR	AIC	Model comparison	Δ CFI	Δ TLI
Initial Model	95.091	48	.057	.040, .073	.965	.951	.038	8914.763			
Model (1)	231.14	51	.108	.094, .122	.865	.825	.077	9057.196	1 versus initial	-.100	-.126
Model (2)	261.40	51	.116	.842, .796	.842	.796	.090	9098.124	2 versus 1	-.023	-.029
Model (3)	383.69	53	.143	.130, .157	.752	.691	.105	9222.596	3 versus 2	-.090	-.105
Model (4)	741.13	54	.205	.192, .218	.484	.369	.174	9648.670	4 versus 3	-.268	-.322

Note. * $p < .05$.

The initial model fit indices were good ($\chi^2(48) = 95.091, p < .001$; RMSEA = .05; CFI = .96; TLI = .95; SRMR = .03; AIC = 8914.763). Each one of the alternative models did not show good fit indices, proving that the hypothesised model was the best one. The standardised factor loadings, estimated factor correlations, and error variances of the initial model are displayed in Figure 1.

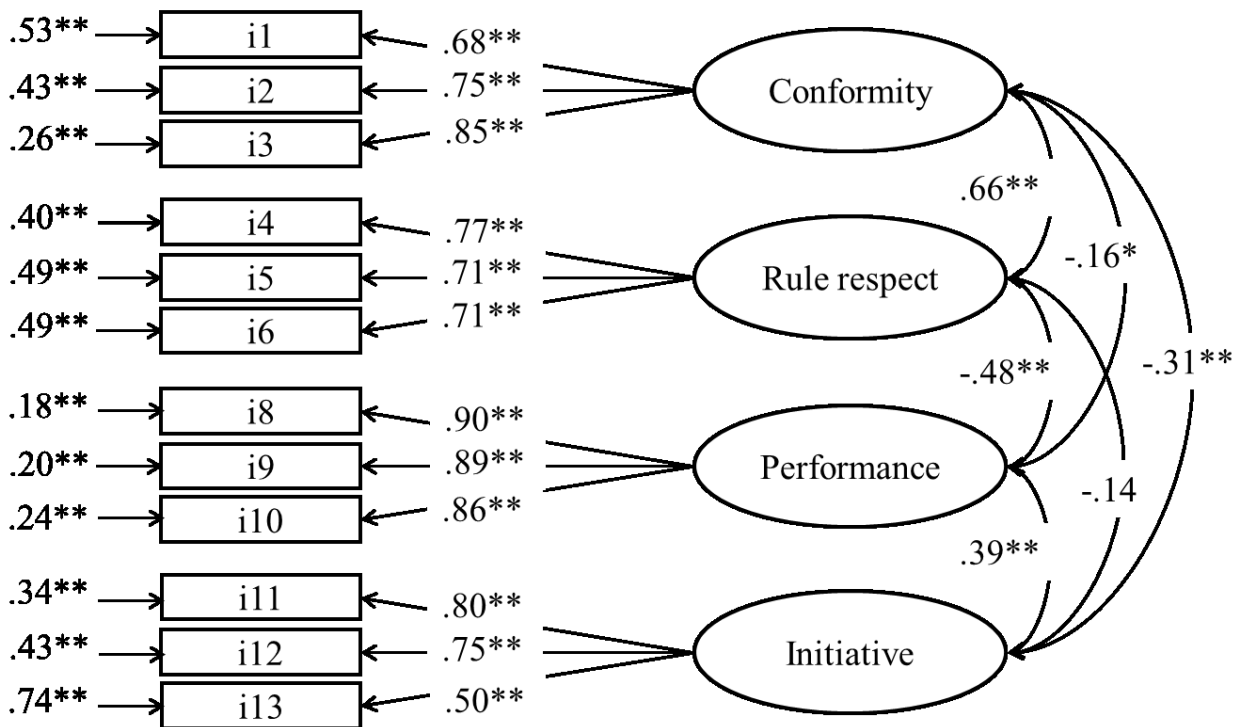


Figure 2.1. Confirmatory factor analysis of NDA scale, study 3; * $p < .05$, ** $p < .01$

2.4.3.2 Convergent and Discriminant Validity

2.4.3.2.1 Method

To assess convergent and discriminant validity we proceeded to a correlation analysis between the NDAS dimensions and similar or divergent theoretical construct; the used sample was the same as in the below CFA section ($N = 304$). Hence, we measured the following constructs that, expected constructive deviance, were scored on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Conformity was measured using a three-item measure adapted from Reysen and Branscombe (2008). The items were designed to evaluate general conformity. An item example is “I generally conform to the norms of the groups to which I belong”.

Cognitive flexibility was assessed using a twelve-item scale, originally created by Martin and Ruben (1995). For this study, we used the French translation developed by Binard and Pohl (2014). An example of one of the items is “I can communicate an idea in many different ways” or “I am willing to work at creative solutions to problems”.

Prosocial rule breaking was evaluated by the GPSRBS (Dahling et al., 2012) a 13-item measure studying the worker’s behaviours of rule breaking to be efficient, to help a co-worker, and to help a customer. The French measure is composed of eleven items (Chapter 3). An item example for the efficiency dimension is “I violate organizational policies to save the company time and money”, an example of the co-worker’s aid is “I break organizational rules if my co-workers need help with their duties”, and one for the customers’ help dimension is “I break organizational rules to provide better customer service”.

Constructive deviance was measured using the Galperin’ (2012) measure that analyses behaviours that violate norms towards the goal of producing constructive improvements at

interpersonal and organizational levels. For this study, we used the French 7-item scale version (Déprez, 2017). An item from the interpersonal dimension is “[You] Disobeyed your supervisor’s instructions to perform more efficiently” and “[You] Bent a rule to satisfy a customer’s needs” for the organizational aspect”. The items were evaluated with a five-point Likert scale from 1 (never) to 5 (daily).

Voice was assessed via the 20-item measure from Maynes and Podsakoff (2014) that encompasses four dimensions of voice behaviours, two with a promotion orientation (supportive and constructive factors) and two others with an inhibition orientation (defensive and destructive factors). Each of these dimensions was composed of five items: the constructive aspect (e.g., “Often suggests changes to work projects in order to make them better”), the supportive aspect (e.g., “Defends organizational programs that are worthwhile when others unfairly criticize the programs”), the defensive aspect (e.g., “Speaks out against changing work policies, even when making changes would be for the best”) or the destructive aspect (e.g., “Often makes overly critical comments about the organization’s work practices or methods”).

Table 2.4. Correlation among Deviant and Normative Attitudes and among Theoretical Correlate Behaviours

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Deviant performance	2.96	.98	(.91)														
2. Deviant initiative	3.28	.72	.70**	(.72)													
3. Normative conformity	2.64	.84	-.14*	-.16**	(.80)												
4. Normative rule respect	2.73	.83	-.41**	-.24**	.53**	(.77)											
5. Conformity	2.50	.84	-.19**	-.23**	.23**	.21**	(.78)										
6. Cognitive flexibility	3.87	.44	.10	.22**	-.20**	-.09	-.35**	(.70)									
7. PSRB efficiency	2.63	.94	.48**	.36**	-.03	-.27**	-.09	.12*	(.75)								
8. PSRB co-worker	3.13	.98	.38**	.28**	-.11*	-.27**	-.05	.10	.57**	(.84)							
9. PSRB customer	3.14	1.01	.45**	.34**	-.06	-.32**	-.08	.12*	.71**	.58**	(.82)						
10. CDB interpersonal	2.50	.80	.48**	.37**	-.09	-.26**	-.09	.03	.45**	.44**	.42**	(.67)					
11. CDB organizational	2.60	.82	.58**	.43**	-.18**	-.38**	-.10	.05	.49**	.44**	.48**	.78**	(.82)				
12. Supportive voice	3.37	.77	.11*	.26**	-.10	-.00	-.13*	.17**	.07	.06	.01	.18**	.15**	(.83)			
13. Constructive voice	3.42	.81	.18**	.39**	-.06	-.08	-.18**	.28**	.13*	.09	.08	.24**	.20**	.62**	(.88)		
14. Destructive voice	1.88	.69	.33**	.24**	-.06	-.24**	-.07	-.10	.19**	.22**	.15**	.47**	.44**	-.00	.15**	(.76)	
15. Defensive voice	1.85	.67	.10	.06	-.10	-.14*	-.09	-.12*	.00	.07	.02	.25**	.24**	.00	.08	.53**	(.73)

Note. *N* = 304; The Cronbach's alpha corresponds to the number in brackets; **p* < .05, ***p* < .01; CDB = constructive deviance behaviour, PSRB = prosocial rule breaking.

2.4.3.2.2 Results

Via correlations, we analysed the convergent and discriminant validity of the NDAS. Results are presented in Table 4. The results with the conformity variable showed, as expected, that the two deviant factors were negatively related with it, whereas the two normative factors were positively related to conformity. Concerning cognitive flexibility, only the performance deviant attitude was positively related to it. Conformity normative attitude was negatively related to cognitive flexibility. In the case of positive deviant behaviours (PSRB and constructive deviance), the performance deviant attitude showed the highest correlation, even with destructive deviance behaviour, than with the initiative dimension of the NDAS, that was more correlated with the voice promotion dimension. As expected, the two normative factors showed a negative correlation, or non-relation, with the voice dimensions and the positive deviant behaviours. To summarize, these results have good convergent and discriminant validities (Kline, 2016; McDowell & Newell, 2006), and the internal consistency of each scale was acceptable, specifically for the NDAS ($\alpha = .72$ to $.91$).

2.5 Discussion

The first objective of this study was to propose a French version of a scale for normative and deviant attitudes in the organizational context. The EFA revealed that the better factorial structure for the NDAS measure was composed, as expected, of four factors. Furthermore, following the CFA results, it appears that the hypothesized four-factor model, composed of three items each, was the most suitable for measuring deviant and normative attitudes. Reducing our initial pool of 20-item to a 12-item scale with fewer items (Podsakoff & MacKenzie, 1994).

Moreover, the correlation scores obtained for the two normative factors showed acceptable convergent validity with the conformity variable (Reysen & Branscombe, 2008), whereas the deviant factors were negatively correlated with it, confirming the difference between the concepts. The positive correlations observed between the deviant attitudes and the constructive deviant behaviours informed us about the existing relationship between the attitudinal and behavioural aspects of the constructs. Moreover, the moderate scores of the correlations allowed us to verify that NDAS was indeed an attitudinal scale different from the behavioural measures (Kline, 2016). The observed positive relationship between voice (promotive and prohibitive dimensions) and the two normative attitudes showed us that deviant attitudes could be related to others constructs; in a positive or negative manner, as can be seen with the positive correlation scores between the two deviant attitudes and the destructive voice factor. The only variable, regarding deviant attitudes, which had a significant link only with the deviant attitude of initiative, was cognitive flexibility. This makes it possible to assume that only the attitude of initiative necessitates an ability to be cognitively flexible.

Concerning the two normative attitudes, results showed that the conformity dimension was not related to deviant behaviours nor to the voice constructs. The attitude to conformity was also negatively related to cognitive flexibility, hence showing that individuals with high conformity

scores are less cognitively flexible and, therefore, less susceptible to generate ideas (Binard & Pohl, 2014). However, as expected, the respect of the rule, which is an attitude conceptually opposed to deviant behaviours (Dahling et al., 2012; Galperin, 2002), was negatively related to PSRB and constructive deviance. Furthermore, the respect of the rule was only related to the prohibitive dimensions of voice, thus, confirming a possible difference between proactive constructive behaviours and some positive deviant behaviours (Galperin, 2012).

2.5.1 Limitations

Despite the fact that NDAS showed good validities, some limitations were observed. First, all of our measures were self-reported, and this approach may lead to common method bias issues (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Although this method of collection is common (Ones, Viswesvaren, & Schmidt, 1993) and it stays with the specificity of the deviant items (Dahling et al., 2012; Galperin, 2012), the NDAS would benefit from being analysed also from the point of view of the supervisor and the collaborators (Robinson & O'Leary-Kelly, 1998). Second, the sample was essentially composed of women, therefore, it would be necessary to carry out research on other samples better gender-balanced. Finally, the scale makes it possible to measure, from a general point of view, the different factors constituting it. NDAS does not make it possible to target specific sectors, and will require specific modifications depending on the environment. A third phase of validation with new behavioural and attitudinal elements would be necessary.

2.5.2 Future Research

In conclusion, this article, through the creation of a measure, makes it possible to demonstrate that there's indeed an attitudinal component of deviance and normativity. That's why, despite the referred limitations, the NDAS's discriminant, congruent, and convergent

validities, showed good results and raised new questions and research paths. Indeed, the difference of correlation scores between the deviant behavioural variables and voice, regarding the attitude of respect for the rules, makes it possible to suppose a conceptual difference between proactive behaviours and the behaviours of positive deviance. This difference must be analysed as some authors (Vadera et al., 2013) incorporate behaviours such as voice (VanDyne & Lepine, 1998) or taking charge (Morrison & Phelps, 1999) in the dimension of positive deviance. Thus, the NDAS would make it possible to analyse what relation to deviance maintains these behaviours considered to be close. Furthermore, future research should explore the role played by the normative and deviants attitudes in the change and innovation process. We suggest that there's a close link between the ability of individuals to deviate and their innovative behaviour (e.g., Anderson, De Dreu, & Nijstad, 2004). This link is even clearer, when the individual acts in response (or in prevision) to an organizational situation harmful to himself, his colleagues, or his organization (Anderson et al., 2004). Deviant and normative attitudes would then be an essential antecedent to analyse, which responds to the call of researchers for determining the common antecedents of change and innovation-related behaviours (Potočnik & Anderson, 2016). It should also be explored the relationship with these attitudes at the different organizational levels of innovation (See Battistelli, 2015). Indeed, a recent study has shown that conformity had an impact on the innovative process (Miron-Spektor, Erez, & Naveh, 2011), our scale should be useful to further explore this relationship. Finally, Moscovici (1979) defined deviance as a stage preceding change and the return to norm by the creation of a minority group. This dynamic aspect will benefit from being studied through the analysis of the role played by the deviant and normative attitudes in the development of constructive but also destructive organizational behaviours.

Chapter 3 – Article 2**Positive Deviant Behaviours or Change and Innovation-related Construct: a Constructive Bright and Dark Side Approach****Abstract**

This study explores the nomological network of constructive deviance by analysing the relationship between constructive deviant behaviours and related constructs. In a series of two studies, the nature and role of constructive deviant behaviour are explored. The first study consists of the validation of the French-translated constructive deviant behaviour scale (Galperin, 2012); convergent and discriminant validity supported this 7-items scale. The second study explores the relationship between positive deviant behaviours, as constructive deviant behaviour, and prosocial rule-breaking behaviour, with related constructs (Vadera, Pratt, & Mishra, 2013) like voice, innovative work behaviour generation and taking charge. Results show that two higher factors, labelled constructive dark side (CDS) and constructive bright side (CBS), encompassed deviant behaviours (CDS) and proactive behaviours (CBS) respectively. The results concerning the two second-order factors, inform us about the existing disparity between these behaviours which are, nevertheless, oriented towards change and innovation. Future research and implications are discussed.

Keywords: constructive deviance, proactivity, behavioural constructs, scale translation, second-order factor

3.1 Introduction

The organizational literature primarily studied deviant behaviour like the destructive intent to harm the organization or peers (Bennett & Robinson, 2000; Judge, Scott, & Ilies, 2006; Robinson & Bennett, 1995). In the last twenty years, researchers focused on a different point of view and analysed deviance as an organizational constructive contribution. This highlighted the positive deviant behaviour oriented towards support and organizational change (Galperin, 2012; Spreitzer & Sonenshein, 2004) and to innovation (Acharya & Taylor, 2012; Galperin, 2002). Thenceforth, employees that depart from the norms to increase well-being and the organizational performance were considered as pioneers of change and innovation (Galperin, 2012). Despite the fact that the researchers were continuing to focus on the destructive deviance (DD), studies on the relationship between DD and constructive deviance (CD) (Galperin, 2012; Galperin & Burke, 2006; Warren, 2003) sparked an increasing interest in the CD. In this way, Vadera, Pratt and Mishra (2013) proposed an integrative model of nomological network of CD and argued that it could be “an umbrella term that encompasses several different behaviours, including taking charge (TC), creative performance, expressing voice (V), whistle-blowing, extra-role behaviours, prosocial behaviours, prosocial rule breaking (PSRB), counter-role behaviours, and issues selling” (p.1221). Following these authors, some of the referred behaviours were originally defined as deviancy (“to be”); while others, which considered the situation, like voice and TC, were presented as “potential” deviant behaviours (“could be”). Although inclusive and adapted to the current organizational context, this approach reveals that the study on CD is still unclear. Indeed, the difference between “to be” and “could be” could lead to construct drift and contamination. In a review on change and innovation (CI)-related concepts, Potočnik and Anderson (2016) examined the CI nomological network and warned us on the dysfunctional

operationalization of similar constructs like innovation (IWB), creativity, job crafting, voice, proactive behaviours, personal initiative, TC, submitting suggestions, and extra-role behaviours. Some of these behaviours were the same as some of the CD constructs encompassed by Vadera et al. (2013). Despite the theoretical deviance and CI-oriented nature of these behaviours, the CD's behaviours umbrella-principle could be the result of an erroneous assumption. To clean up and reduce the theoretical ambiguity that might exist between all of these different concepts, some authors suggested to test construct validity (Parker & Collins, 2010; Potočnik & Anderson, 2016; Vadera et al., 2013). We propose to integrate, in this study, the Galperin's CD construct (2012) – that examines CD's specific characteristics – to better understand the behavioural processes that underlie these different concepts. In this way, we tested a French validity analysis of the Galperin's CD behaviour (CDB).

In order to contribute to this literature we first, briefly, reviewed current works on CD and DD behaviours in the organizational context. Second, we performed an analysis of two studies to better explore the concept of CD. In study one, we presented results on the CDB measure validity assessed on a French sample through CFA and explored congruent validity with others behaviours considering them as extra-role behaviours: IWB, PSRB and DD. In study two, we empirically explored the umbrella CD construct encompassing some of the behaviours proposed by Vadera et al. (2013) using second-order factor analysis. Following the results of the Study 1, the chosen constructs were CDB, PSRB, IWB, voice and TC. Finally, we discussed the practical and theoretical implications of this paper.

3.2 From Destructive to Constructive Deviance

Destructive deviance was analysed like a harmful behaviour to the environment which was defined by Robinson and Bennett (1995) as a “voluntary behaviour that violates significant organizational norms and in so doing threatens the well-being of an organization, its members, or both” (p. 557). These authors presented two DD typologies: the behaviour’s target (organizational/interpersonal) and the harmful behaviour’s power (minor/serious). Four sub-dimensions were observed in this interaction. From the minor impact to the serious the organizational dimension concerned the production (e.g., leaving early) and property deviance (e.g., stealing from the company). The interpersonal dimension concerns political deviance (e.g., gossiping about co-workers) and political aggression (e.g., sexual harassment). From this analysis, a two-factor model composed by the organizational and interpersonal deviance has emerged (Bennett & Robinson, 2000); this one was frequently one of the most used models of destructive behaviour (for different approaches, see Spector et al., 2006; Desrumaux, Leoni, Bernaud, & Defrancq, 2012). For sixteen years, scholars largely studied DD. Research suggested a wide range of antecedents, for example: personal traits, organizational citizenship behaviours (OCB) and organizational justice (Berry, Ones, & Sackett, 2007), superior aggression (Hershcovis & Barling, 2010) or task satisfaction (Zoghbi-Manrique-de-Lara, 2010). The principal analysis of the DD outcomes focused on the big financial impact (Henle, Giacalone, & Jurkiewicz, 2005; Peterson, 2002) or the organizational productivity and performance (Hussan, Sia, & Mishra, 2014). Another effect could be explored by the “workplace incivility” literature (see Reio & Ghosh, 2009). This negative behaviour induced destructive effects on the workplace and on the workers, but, as Warren (2003) specified, deviance is not only a negative concept and could be oriented towards a promotional process that contributes to the organization’s well-being.

The literature defined constructive deviance behaviour as a "voluntary behaviour that violates significant norms with the intent of improving the well-being of an organization, its members or both" (Galperin, 2002). The implementation of this behaviour faces three targets (Galperin, 2002; Galperin & Burke, 2006): organizational innovation (looking for innovative/non-conventional procedures to help its organization), interpersonal interaction (disobeying the orders or alert the competent organizational authorities to bring positive change), and research challenges at organizational levels (challenging established standards to support the organization). Therefore, CDB suppose an organizational innovative process, where individuals wish to improve but don't accept the label of innovative people, or come into conflict with the organization's goals (Galperin, 2002; Merton, 1968). This process is characterized by a departure from the norm that brings out the expression of CDB and is composed of two factors: interpersonal and organizational deviance (Galperin, 2012). The first one concerns behaviours that focus on individuals and presents the "deviant" as someone that doesn't follow the orders of their supervisor, or that challenges the team to increase its performance. The second behaviour refers to challenging or breaking existing standards of the organization for helping it. Previous research has related the two CDB's dimensions with various antecedents like role breath self-efficacy and workaholism (Galperin & Burke, 2006), or Machiavellianism (Galperin, 2012). Other studies examined the relationship between CDB and psychological ownership (Chung & Moon, 2011; Yildiz, Alpan, Ates, & Sezen, 2015) or perceived organizational support (Kura, Shamsudin, & Chauchan, 2016). To our knowledge, only one empirical research assessed the CDB in relation to outcomes, such as performance (see Mertens, Recker, Kummer, Kohlborn, & Viaene, 2016). Likewise, except for Vadera et al.'s (2013) theoretical proposition, there is no study analysing the relationship between CDB, PSRB and CI behaviours.

3.3 Change and Innovation-Related Concepts Matters

Studies on CDB have assumed the existence of an innovative implication for the organizational and interpersonal contexts. These implications can be seen at the innovative, contextual, production, and/or innovative-thinking levels. As a matter of fact, CDB implied innovative results which are explained by the “constructive” properties of CDB and were related to processes that promoted organizational change (Galperin, 2002, 2012). Furthermore, Vadera et al. (2013) integrated the creativity, an innovation generation-related constructs (Anderson, Potočnik, & Zhou, 2014), into the CD umbrella concept. Finally, the innovation process was more likely to emerge in a context where the individual displayed a divergent thinking (Anderson, De Dreu, & Nijstad, 2004). The contexts could produce conflicts that could lead, in interaction with divergent thinking, to innovative deviant behaviours (Acharya & Taylor, 2012). All of these findings can support the theory that, despite its deviant nature, CI constructs encompass CDB.

However, despite the empirical evidence for some of the CI-related constructs and behaviours encompassing the CD umbrella, we need a further exploration. Researchers have argued on the similitude between these behaviours, however, we need to analyse the disparities that can lead to confusion, drift, or contamination between the studying concepts (Potočnik & Anderson, 2016). The principal difference between the two approaches can be found in the inclusion, or not, of deviant behaviours. For example, counterproductive behaviours, and PSRB are not taken into account in the CI-related construct analysis; which is not the case for the CD umbrella proposition which includes them. Therefore, this analytical approach excludes a whole facet of the literature on the CI process. However, the two approaches lead towards the same conceptual direction: their positive effect on organizational change. The high similitude between the two propositions can be due to construct contamination or construct confusion. Indeed, the

CD's umbrella approach describes voice and TC as CD's constructs, when they are defined as proactive behaviour (Tornau & Frese, 2013), and, in more detail, empirically they've included a "proactive work behaviour" higher-order factor (Parker & Collins, 2010). A first step, to resolve the CD and CI construct similarity, is to analyse CDB, which can enlighten us on the relation between these approaches.

In order to explore in depth, the CD constructs we conducted the study 1 on French sample to test the convergent and congruent validities of the CDB measure. Our first study consists of the test of the CDB's French scale.

3.4 Study 1

3.4.1 Relation between Destructive Deviance and Constructive Deviance

A first step was to investigate the correlation between DD and CDB. Conceptually, the two-dimensional DC scale's distribution corresponds to the Bennett and Robinson's (2000) DD. The principal difference takes shape in the deviant agent intention to help, or harm, his organization, colleagues, and/or customers (Galperin, 2002, 2012; Warren, 2003). Despite the large number of studies on DD, few researchers identify the antecedents or consequences of constructive deviance. One of them showed the positive effect of constructive deviance on organizational performance; when DD lowered organizational performance, CDB increases it (Mertens et al., 2016).

Despite this opposite theoretical relation, empirical studies (Galperin, 2012; Galperin & Burke, 2006) have shown the positive correlation between DD and CDB behaviours. They explained this positive relationship by the fact that "both forms of deviance encompass behaviours that violate the organizational norms" (Galperin, 2012, p. 3016). Furthermore, whereas DD and CDB produce different results, they could share similar antecedents, like

Machiavellianism (Bennett & Robinson, 2000; Galperin, 2012), or not, such as the positive effect of role breath self-efficacy only on CDB (Galperin, 2012). This reflexion on the antecedent analysis could explain why deviant behaviour seems to be positively related. Thus, differences between the two deviance behaviours indicated that the two constructs bear no resemblance. However, considering the previous studies, we formulated the following hypotheses:

Hypothesis 1a. DD should be positively related to CDB.

Hypothesis 1b. CDB and DD should be related differently to others construct.

3.4.2 Theoretical Related Constructs

A second step is to analyse the convergent validity between CDB and other variables. Indeed, the positive intention that defines constructive deviance, is also found in similar behaviours (see Vadera et al., 2013), which can be characterized by a willingness to go beyond established standards. Following the proposition of Vadera et al. (2013), we used in this study three specific behaviours: innovative work behaviour generation, prosocial rule breaking and organizational citizenship behaviour.

3.4.2.1 Innovative Work Behaviour

For the last forty years, innovative behaviour has been widely studied in the literature of work and organizational psychology at three levels of analysis: individual, team, and organization (see Battistelli, 2015). West and Farr's (1990), commonly used definition presents IWB as "the intentional introduction and application within a role, group or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, the organization or wider society" (p. 9). Innovation is a cyclical process within the organizational context (West, 1990), composed by three phases: generation, promotion and implementation of ideas (Janssen, 2000; Kanter, 1988). As IWB is oriented towards the

improvement and the modification of the status quo, it could be perceived as a similar construct to CD (Acharya & Taylor, 2012; Galperin, 2002). Furthermore, while innovation involves a promotion and implementation phase, breaking norm processes characterizes CDB, which can lead to innovative behaviour (Anderson et al., 2004; Anderson et al., 2014). In this paper, we pay attention to the generation-phase, which relates to the construct of creativity (Anderson et al., 2014) classed by Vadera et al. (2013) as a CD construct. Consistent with this body of research we supposed a positive relationship between IWB generation and CDB.

Hypothesis 2. Innovative work behaviour generation should be positively related to CD.

3.4.2.2 Prosocial Rule Breaking Behaviour

As proposed by Spreitzer and Sonenshein (2004), the prosocial rule breaking (PSRB) is a form of positive deviance. This concept is characterized as a deliberate breaking of rules in the interest of the organization or its stakeholders (Dahling, Chau, Mayer, & Gregory, 2012). Three different organizational types of rule breaking could be defined (Morrison, 2006): (1) effectiveness (to be more effective in achieving the tasks), (2) co-worker aid (help another employee in his work), and (3) customer aid (provide better customer service). Therefore, this behaviour targets a feature of the CDB, which is breaking the rules for a prosocial goal. The need to be more effective for oneself, the organization, or others, explains the prosocial intention. By nature, this process implies a violation of the significant norms such as CDB and DD behaviour. Furthermore, despite the theoretical distinction of PSRB with counterproductive work behaviour, a positive relationship has been found between them (Dahling et al., 2012). We supposed that this construct, by its CD nature (Dahling et al., 2012; Morrison, 2006; Vadera et al., 2013), could be a more similar behaviour to CDB, hence, we formulate the following assumption:

Hypothesis 3. Prosocial rule breaking is positively related to CD.

3.4.2.3 Organizational Citizenship Behaviour

Organ (1988) defines organizational citizenship as an “individual behaviour that is discretionary, not directly, or explicitly recognized by the formal reward system and that in the aggregate promotes the effective functioning of the organization” (p. 4). Four dimensions are inscribed to OCB (Paillé, 2009; Podsakoff & Mackensie, 1994): (1) helping, (2) sportsmanship, (3) altruism and (4) civic virtues. In this study, we choose to explore the extra-role aspect, which is common to the CI and CD umbrella conception, by the use of the OCB analysis. Following the Vey and Campbell (2004) preconisations on the extra-role/in-role distinction between some dimensions of the OCB, we focus our analysis on the helping and civic virtues dimension. In preview study, OCB was related to CDB by their extra-role aspect (Galperin, 2012), but while CD constructs required workers to be proactive in norm violation (Galperin, 2012), OCBs suppose opposite meaning by the act of complying with the norms, rules, and the positive influence of perceived organizational support (Battistelli, Galletta, Pothoghesse, Pohl, & Odoardi, 2013; Pohl, Dal Santo, & Battistelli, 2011). Thereby, the OCB’s passive and discretionary nature is conceptually opposed to the CD displayed behaviour. Although empirical studies demonstrated a negative relationship between OCB and CDB (Galperin, 2012), and OCB and DD (Evans, Goodman, & Davis, 2011), some authors questioned the discretionary nature of OCB (e.g., Coyle-Shapiro, Kessler, & Purcell, 2004; Vigoda-Gadot, 2007). Based on these assumptions, we propose that OCB and CDB could exhibit a negative relationship, which is consistent with Galperin’s (2012) results. Consequently, we formulate the following:

Hypothesis 4. OCB helping and civic-virtue dimensions should be negatively related to CD.

3.4.3 Method

3.4.3.1 Sample & Procedure

Our sample (S_1) was composed by French workers ($n_I = 300$), 83% were women, from different organizations from both public (42%) and private sectors (58%). The average age was 33 years ($SD = 11.47$) with the most of them having the French Baccalaureate level (96.7%), and less than half (39.7%) a better degree than the bachelor's diploma (Master's, PhD). Sixty-eight percent of the participants were subordinates; only 32% of them were managers. The average tenure of the job was 7.17 Years ($SD = 7.85$), and half of them had more than 5 years of organizational tenure. The sample targeted four different job sectors: trade (22.9%), industry (21.2%), health (30.7%) and social services (25.2%). Missing data were deleted list-wise.

French workers implied in a full-time job, which were recruited on different social networks (*Facebook, LinkedIn, and Viadeo*), responded to the survey through the electronic platform *Limesurvey*. The entire sample was composed of spontaneous participations. We informed the participants that although the surveys were not anonymous (to provide feedback we sent a mail to the respondents), the data were confidential to us. We also assured to the participants that the study did not have any commercial's aims. Prior agreement of participants to participate in the research was required.

3.4.3.2 Measures

In the current study, the data were collected by self-report procedures. Except for OCB, scales used in the study required a translation from English to French language. For each of them, we followed Brislin's (1970) recommendations. A 5-point Likert-type response scale was used for all measures. CDB, DD and IWB-generation were rated from "never =1" to "always = 5",

PSRB and OCB were rated from “strongly disagree = 1” to “strongly agree = 5”. The scale’s internal reliabilities went from .67 to .86 (see Table2).

Constructive Deviance. In the context of a proposal tested tool, the Galperin’s (2012) scale was administered. This scale is originally composed of two dimensions: four items for interpersonal deviance (e.g., “Did not follow the orders of your supervisor in order to improve work procedures”) and five items for organizational deviance (e.g., “Bent a rule to satisfy a customer’s needs.”).

Destructive Workplace Behaviour. This variable was measured with a scale developed by Bennett and Robinson (2000) which is composed of two sub-scales. Originally, this scale has twelve items that measure organizational deviance (e.g., “Put little effort into your work”) and seven items that measure interpersonal deviance (e.g., “Publicly embarrassed someone at work”).

Innovative Work Behaviour. This variable was measured with the 9-item scale by Janssen (2000), composed of three different sub-scales: idea generation (e.g., “Generating original solutions for problems”), idea promotion (e.g., “Acquiring approval for innovative ideas”), and idea realization (e.g., “Evaluating the utility of innovative ideas”). For the study, we used only the innovative work behaviour idea generation score (see Janssen, 2000; Scott & Bruce, 1994), composed by three items. Respondents were asked to rate how often they performed innovative behaviours during their usual work.

Prosocial Rule Breaking. The three PSRB’s dimensions were measured with the General Pro-social Rule Breaking Scale (GPSRBS, Dahling et al., 2012). Originally thirteen items were used, five items to measure efficiency (e.g., “When organizational rules interfere with my job duties, I break those rules”), four items to measure customer service (e.g., “I break organizational rules to provide better customer service”), and four items to measure co-worker aid (e.g., “I help out other employees, even if it means disregarding organizational policies”). For this study, we

used an 11-item version scale with four items for efficiency and three items for co-worker aid. The 11-item scale presented good model-fit indices. The scale directive asked respondents to rate the extent to which they agreed or disagreed with the workplace behaviour item description.

Organizational Citizenship Behaviour. The four OCB's dimensions were usually measured with the French scale of Podsakoff and Mackensie (1994). The translation (Paillé, 2009) was a 13-item scale, with four items for co-workers aid (e.g., "I am a stabilizing influence in the agency when dissension occurs"), two items for altruism (e.g., "Willingly gives of my time to help other agents who have work-related problems"), three items for civic virtue (e.g., "Attends and actively participates in agency meetings"), and four reversed-items for sportsmanship (e.g., "Always finds fault with what the agency/company is doing"). For this study, based on the Cronbach's alpha results, we only use four items of the helping dimension and two items of the civic-virtues dimensions. Respondents indicated the extent to which they agreed or disagreed with each item in terms of how well it described their workplace behaviours.

3.4.3.3 Results

To assess the CDB, DD, PSRB and OCB relationship, we first conducted confirmatory factor analysis (CFA) on the CDB scales. Using *Mplus7.4* (Muthen & Muthen, 2015), a CFA was performed in order to examine the CDB's scale initial structure proposed by Galperin (2012). In link with Byrne (2012) and Kline's (2016) recommendations to interpret the model fit indices, the root mean square error of approximation (RMSEA), the chi-square value and degree of freedom, the comparative fit index (CFI), the Tucker-Lewis index (TLI), the Standardized root mean square residual (SRMR) and the Akaike information criterion (AIC), were examined (see Tabachnick & Fidell, 2012).

A first analysis on the CDB two-factor original model scale was performed. The fit indices showed a moderate fit for the 9-items two-factor model ($\chi^2(26) = 124.99$, $p < .001$; RMSEA = .113; CFI = .90; TLI = .86; SRMR = .05). Concerning the French scale adaptation, the best solution was to eliminate problematic indicators (Anderson & Gerbing, 1988). Following a conceptual item examination and a statistical analysis, two items were deleted: "Departed from organizational procedures to solve a customer's problem" and "Disagreed with others in your work group in order to improve the current work procedure". A shorter 7-items and two factor scale (see Table1), with improved fit indices ($\chi^2(13) = 29.03$, $p < .01$; RMSEA = .06; CFI = .97; TLI = .96; SRMR = .03; AIC = 5075.516) resulted from this procedure. The scale presented good internal consistency reliability.

Table 3.1. *Item Loading from Confirmatory Factor Analysis of Items*

Items	CDBI	CDBO
Did not follow the orders of your supervisor in order to improve work procedures. <i>Ne pas suivre les ordres de votre superviseur afin d'améliorer les procédures de travail</i>	.859	
Disobeyed your supervisor's instructions to perform more efficiently. <i>Désobéir aux instructions de votre superviseur pour effectuer votre travail plus efficacement</i>	.811	
Reported a wrong-doing to co-workers to bring about a positive organizational change. <i>Rapporter un méfait aux collègues de travail pour provoquer un changement positif</i>	.466	
Violated company procedures in order to solve a problem. <i>Enfreindre les procédures de l'entreprise afin de résoudre un problème</i>		.884
Bent a rule to satisfy a customer's needs. <i>Plier une règle aux besoins d'un client</i>		.798
Sought to bend or break the rules in order to perform your job. <i>Chercher à plier ou casser les règles dans le but d'effectuer votre travail</i>		.668
Departed from organizational policies or procedures to solve a problem. <i>S'écarter de procédures dysfonctionnelles pour résoudre un problème</i>		.580

Note: $n_1 = 300$. CDBI = constructive deviance behaviour interpersonal; CDBO = constructive deviance behaviour organizational.

Despite the good fit indices, the analysis showed a high correlation between the CDB's interpersonal and organizational dimensions ($r = .77, p < .001$; see table 2). So, we tested a unidimensional 7-item CDB model and obtained poor fit indices in comparison with the two model dimensions ($\chi^2(14) = 35.905, p < .001$; RMSEA = .72; CFI = .97; TLI = .95; SRMR = .03; AIC = 5083.855.169). The Cronbach alphas, for the two factors, were acceptable (Table 2).

To investigate the relationship between CDB and theoretical correlated behaviours, we conducted bivariate correlation analysis (Table 2). As expected, the DD's and the CDB's dimensions were positively correlated between them (Hypothesis 1a). However, we obtained a low correlation between the two concept (from $r = .21, p < .01$, to $r = .27, p < .01$). After this, we conducted an analysis of the correlation between IWB generation and CDB. Results presented a low correlation between the two CDB dimensions ($r = .21, p < .01$). Hypothesis 2 was supported. Furthermore, there is no relationship between DD and this construct.

Additionally, we analysed the correlation between the PSRB and the CDB's factors. Results showed strong moderate correlation between the two CDB's dimension (from $r = .33, p < .01$, to $r = .52, p < .01$) with a higher correlation with the organizational factor (Table 2). Hypothesis 3 was supported. Correlations between PSRB and DD factors, except for the efficiency dimension (from $r = .19, p < .01$, to $r = .26, p < .01$), were very poor and indicated a low, or not present, correlation between the two behaviours. Ultimately, we investigated the relation between CDB's factors, DD's factors and OCB's dimensions. No correlations were finding between OCB civic virtue and the four deviance factors. Only interpersonal DD's factor negatively correlates with OCB helping dimension ($r = -.11, p < .05$). The hypothesis 4a was not supported. According to these results, hypothesis 1b is partially supported.

Table 3.2. Mean, Standard Deviation and Correlation among Deviant Behaviours and among Theoretical Correlate Behaviours

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. DD interpersonal	1.62	.45	(.67)									
2. DD organizational	1.53	.35	.44**	(.72)								
3. CDB interpersonal	2.53	.83	.27**	.21**	(.72)							
4. CDB organizational	2.59	.80	.25**	.22**	.77**	(.82)						
5. I generation	3.51	.79	.08	-.07	.21**	.21**	(.77)					
6. PSRB efficiency	2.58	.90	.19**	.26**	.49**	.52**	.24*	(.73)				
7. PSRB co-worker	2.96	1.01	.07	.14*	.33**	.36**	.05	.55**	(.85)			
8. PSRB customer	3.09	.96	.10	.11*	.41**	.48**	.16*	.68**	.62**	(.81)		
9. OCB helping	3.36	.84	-.11*	-.08	.10	.10	.27**	.04	.08	.06	(.77)	
10. OCB civic virtue	2.90	1.07	.03	-.05	.03	.10	.30**	.11	.10	.07	.37**	(.78)

Note: $n_1 = 300$; The Cronbach's alpha corresponds to the number in brackets; * $p < .05$, ** $p < .01$; DD = destructive deviance; CDB = constructive deviance behaviour, I = innovation, PSRB = prosocial rule breaking, OCB = organizational citizenship behaviour.

3.4.4 Discussion

The aim of this first study was to adapt the CDB's scale to a French population. Although the results showed a necessity for scale reduction, we can argue that the CDB's French scale translation fulfils our expectations and fits with the Galperin two-factor model. Despite the high correlation between the two constructive factors, the statistical analysis identifies the two-factor model like the most adapted.

Results partially support our hypothesis that explores the relationship between CDB and other theoretical-correlated variables. Following our hypotheses, IWB generation correlated positively with CDB. The low correlation between the two concepts could be explained by the fact that, commonly, few people are disposed to act in a deviant purpose (Dahling et al., 2012; Morrison, 2006), and that the breaking process of innovation is not thoroughly developed in Janssen's (2000) innovation model. In addition, we tested the unidimensional innovation perspective which showed the possibility that the CDB construct doesn't relate to all dimensions of innovation. The obtained results of the correlation analysis between PSRB and CDB supported our hypothesis. The moderate correlation score could indicate a strong relationship between CDB and the PSRB. We present theoretical implications of these results on the general discussion. The correlation analyses between OCB and the two deviance behaviours did not confirm the precedent results obtained by Galperin (2002, 2012). Our results suggest that there's no relation between the deviance process and OCB extra-role dimensions. Finally, the result brings into evidence the reliable stability of DD and CDB scales and corresponds to previous research (Galperin & Burke, 2006). Furthermore, a low correlation score should indicate independence between the two concepts (DD & CDB). The supposed conceptual relationship between CD and DD can only be explained, based on our results, by the violating characteristics of these two behaviours (see

Galperin, 2012); and the people's non-propensity to make deviant behaviours (Morrison, 2006), as for the Galperin and Burke (2006) works.

Although some participants showed moderate scoring between IWB and CDB, we observed a larger OCB scoring with IWB-generation; indicating an individual propensity to prefer enactment of OCB than CDB in innovative general processes. Furthermore, the high majority of employees that composed our sample didn't have managerial responsibilities, which often low autonomy (Korczynski, 2002). Our results show that there's no relationship between the deviance process and OCB extra-role dimensions. Future research should examine the dynamic relation between these two concepts and identify the variables that influence the use of one of these behaviours more than the other.

Considering the moderate correlation between CDB, PSRB, and IWB-generation, we should proceed on a second study that explores the existence of a CD second-order factor including CDB, PSRB and IWB-generation. Due to the non-existent results for the relationship between the extra-role and the CDB construct, we chose-not to include former construct in the empirical exploration of the CD umbrella nomological network.

3.5 Study 2

3.5.1 Introduction

Study 2 was designed to clarify the interrelationship between the constructs encompassed in Vadera et al.'s (2013) CD umbrella theory. For this study, we include in our analyses the relational and task perspectives to better target the integrity of constructive behaviors, as advocated by Grant and Parker (2009), on the study of proactive behaviors. Following the results of study one, we analysed the existence of a second-order factor encompassing the IWB-generation, CDB and PSRB (efficiency and co-working dimensions). We also introduced two behaviours, TC and V, defined as possessing a deviant and a changing orientation (Potočnik & Anderson, 2016; Vadera et al., 2013).

3.5.2 Distinctiveness of Behaviours

The first goal of this second study is to establish whether the selected behaviours are different from each other. Scholars largely studied all the already analysed behaviours, except for CDB and PSRB. We kept in this study the same behaviours as in study 1: IWB-generation, CDB and PSRB. Concerning TC, we used the original literature proactive conception, which is a currently studied behaviour (for recent studies, see Potočnik and Anderson, 2016; Tornau & Frese, 2013). We choose to study the voice by its promotional approach including supportive voice (SV) and constructive voice (CV). In the literature, the voice is essentially characterized by information sharing or comments in order to promote change, without requiring challenging of the status quo (LePine & Van Dyne, 1998). However, expressing opinions, whether directed at improving, or not, can affect relationships between individuals (Bashshur & Oc, 2015), hence, in some cases, leading others to perceive the individual as being deviant (Vadera et al., 2013). Furthermore, this behaviour differs from

other behaviours by the fact that it does not involve a necessary break with established standards.

Specific authors, dimensions, and original definitions used in study 2 were presented in Table 3. Each of these behaviours has been separately studied in this research; scale construct validity predicts empirical distinctions between them. Scholars also explored the empirical (see Parker & Collins, 2010) and the theoretical relationship (Vadera et al., 2013) for some of these behaviours.

To our knowledge, this research is the first to explore the relationship between all of these behaviours, especially the interrelation between CDB and others constructs. Therefore, we suppose that each of the behaviours to be distinct from one another.

Hypothesis 5. IWB-generation, CDB (interpersonal and organizational), PSRB (efficiency and co-worker aid), voice (supportive and constructive), and TC will be distinct from one another.

Table 3.3. *Deviant and Change-Innovative Related Construct that Should Lead to a Common Higher Order Factor*

	Principal Authors	Dimensions	Definitions	CI construct	Departure from the norms ^a
Innovative work behaviour	Janssen (2000) West and Farr (1990)	- Generation* - Promotion - Realization	Intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization	Yes	Potentially yes
Constructive deviance behaviour	Galperin (2002) Spreitzer & Sonenshein (2004) Warren (2003)	- Interpersonal* - Organizational*	Voluntary behaviour that violates significant organizational norms and in doing so contributes to the well-being of an organization, its members, or both	Potentially yes	Yes
Prosocial rule breaking	Dahling, Chau, Mayer, & Gregory (2012) Morrison (2006)	- Efficiency* - Co-worker aid* - Customer help	Intentional violation of a formal organizational policy, regulation, or prohibition with the primary intention of promoting the welfare of the organization or one of its stakeholders	Potentially yes	Yes
Taking charge	Morrison & Phelps (1999) Chiaburu & Baker (2006)	- Taking charge*	Voluntary and constructive efforts, by individual employees, to effect organizationally functional change with respect to how work is executed within the contexts of their jobs, work units, or organizations	Yes	Potentially yes
Voice	Maynes & Podsakoff (2013) Van Dyne & LePine (1998)	- Constructive* - Supportive* - Defensive - Destructive	Individual's voluntary and open communication directed toward individuals within the organization that is focused on influencing the context of the work environment	Yes	Potentially yes

Note. *used dimensions in the CFA analysis; ^a extract from the Vadera et al. (2013) table 1, p. 1225.

3.5.3 Relationship among Behaviours

Despite the distinctiveness of the studied behaviours, Vadera et al. (2013) argued on their possible assemble under a unique CD's umbrella higher-construct. Their argument focused on the fact that workers departed from norms with the intent to be constructive for the organization, others, or one-self. In this way, they proposed a model where TC, V, PSRB and creativity were characterized as CD constructs. For this study, we introduced the umbrella CDB (Galperin, 2012) defined, like the PSRB, as a CD construct. Except for PSRB and CDB, the other behaviours are defined as CI-related constructs (Potočnik & Anderson, 2016) which, in some situations, could be characterized by a departure from the norms (Vadera et al., 2013). However, there are studies that show a strong link between, in one hand TC, V, and innovative role (Parker & Collins, 2010), and on the other hand TC, V, and personal initiative (Tornau & Frese, 2013). These relations could presume, at least, the existence of a second-order factor between TC and V. Furthermore, PSRB has a positive correlation with counter-productive behaviour (Dahling et al., 2012). The same relation was observed with CDB and DD (Galperin & Burke, 2006), but not with proactive behaviours. The convergent validities between deviant and proactive concepts suppose the existence of two constructive second-order factors that, despite the constructive intent sharing, can be divided for the "could be" deviant behaviour (proactive) as "constructive bright side" construct and for the "to be" deviant behaviour as "constructive dark side" construct. By "*dark side & bright side*", we suppose the existence of two sides that are two borders of the constructive behaviours that exist on a behavioural continuum. The bright side supposes a possible departure from the norms in a reduced way (a more conventional elaboration); the dark side implies a total departure from the norms by a breaking process (a less conventional elaboration). Previous studies argued on the importance of well-defined dark/bright sides and do not confound them with an ingenious attribution as good/bad conceptualisations of the CI process (Anderson et al., 2004; Warren, 2004). Furthermore, we proposed the use of dark and bright side to differentiate two higher order forms of constructive behaviours. This procedure is not a construct drift (Potočnik & Anderson, 2016) by the fact that we

did not rename existing constructs into two new dimensions. TC, V, and IWB-generation are proactive behaviours that can exist on the bright side, and CDB and PSRB are deviant behaviours that can exist on the dark side. Following this line of thinking, we suppose the existence of a two-side constructive higher dimension grouping CI-related constructs and the CD umbrella construct.

Hypothesis 6a. IWB-generation, V, and TC should identify together to a higher order of constructive bright side construct.

Hypothesis 6b. CDB and PSRB should identify together to a higher order of constructive dark side construct.

3.5.4 Method

3.5.4.1 Sample and Procedure

The sample differed in size depending on the hypothesis. Missing data subjects were excluded from the analysis. For the exploratory factor analysis (EFA) conducted to test Hypothesis 5, a new sample was composed of French workers (S_2 ; $n_2 = 300$). To achieve a sufficient sample for conducting the confirmatory factor analysis (CFA) and test Hypothesis 6a and 6b, the samples S_1 and S_2 were combined into a total sample (S ; $N = 600$).

Like for S_1 , public (49%) and private sectors (51%) were represented in S_2 . The sample was composed of a high percentage of women (86%) with a mean age of 34 years ($SD = 10.57$). Most of them were employees (71%) and worked in a similar job sector as S_1 : trade (20%), management (26%), health (25%) and social services (29%). As for study 1, we recruited the participants by the use of social media.

3.5.4.2 Measures

We used the same measures for CDB, IWB-generation and PSRB (efficiency and co-workers aid dimensions), as in study 1. All the Cronbach's alphas scales were acceptable (Table 5). Concerning voice and the TC measures, participants responded with a Likert-scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Voice. Maynes and Podsakoff (2013) scale was used to measure V. This measure is a 20-items scale composed of four factors (5 items for each), the constructive (e.g., “Frequently makes suggestions about how to improve work methods or practices.”), the supportive (e.g., “Defends useful organizational policies when other employees unfairly criticize the policies”), the defensive (e.g., “Vocally opposes changing how things are done, even when changing is inevitable”) and the destructive (e.g., “Often bad-mouths the organization’s policies or objectives”) dimensions. For this study, we targeted behaviours aimed at promoting and improving; thus, we conserved the supportive and constructive dimensions (see Maynes & Podsakoff, 2013). A self-report version of the measure was proposed.

Taking charge. Morrison and Phelps (1999) scale was used to measure TC. The measure was composed of ten items (e.g., “This person often tries to eliminate redundant or unnecessary procedures.”) with a unidimensional factor. Following Parker and Collins (2010) work, the scale was adapted to be self-report rather than one based on supervisor ratings.

3.5.4.3 Results

An EFA, using the maximum likelihood extraction with varimax rotation, was conducted (Hypothesis 5). An 8-factor solution was attempted, yet the strong collinearity between the two CDB factors, gather them into 1-factor that conducts to a 7-factor solution. The PSRB factor loading showed the same collinearity. Loadings for the final 7-factor solution are reported in Table 4. As expected, the measures are distinct and support hypothesis 5.

Following the results obtained in the EFA, we perform a second CFA analysis of the CDB with the uses of the S_2 . The result for the 2-factors solution ($\chi^2(13) = 20.07, p < .10$; RMSEA = .04; CFI = .99; TLI = .98; SRMR = .02; AIC = 5001.032) showed better fit indices than the 1-factor solution ($\chi^2(14) = 33.42, p < .002$; RMSEA = .68; CFI = .97; TLI = .96; SRMR = .02; AIC = 5015.267). Cronbach alphas are acceptable (CDBI, $\alpha = .70$; CDBO, $\alpha = .82$).

Table 3.4. Results of the Item Construct Exploratory Factor Analysis

Items	F1	F2	F3	F4	F5	F6	F7
<i>Innovative work behaviour generation: (In my job I...)</i>	(.71)						
Generating original solutions for problems	.65						
Creating new ideas for difficult issues	.57						
Searching out new working methods, techniques, or instruments	.39						
<i>Taking Charge: (I try to...)</i>		(.90)					
Change how my job is executed in order to be more effective		.77					
Institute new work methods that are more effective for the company		.75					
Eliminate redundant or unnecessary procedures		.74					
Adopt improved procedures for doing my job		.73					
Correct a faulty procedure or practice		.69					
Change organizational rules or policies that are non productive or counterproductive		.69					
Bring about improved procedures for the work unit or department		.61					
Make constructive suggestions for improving how things operate within the organization		.56					
Introduce new structures, technologies, or approaches to improve efficiency		.48					
Implement solutions to pressing organizational problems		.47					
<i>Constructive Voice: (In my job I...)</i>			(.90)				
Frequently makes suggestions about how to improve work methods or practices.			.83				
Regularly proposes ideas for new or more effective work methods.			.76				
Frequently makes suggestions about how to do things in new or more effective ways at work.			.58				
Often speaks up with recommendations about how to fix work-related problems			.57				
Often suggests changes to work projects in order to make them better.			.51				

(continued)

Table 3.4. (continued)

Items	F1	F2	F3	F4	F5	F6	F7
<i>Supportive Voice: (In my job I...)</i>				(.84)			
Defends useful organizational policies when other employees unfairly criticize the policies				.88			
Speaks up in support of organizational policies that have merit when others raise unjustified concerns about the policies				.70			
Defends effective work methods when others express invalid criticisms of the methods				.60			
Expresses support for productive work procedures when others express uncalled for criticisms of the procedures				.59			
Defends organizational programs that are worthwhile when others unfairly criticize the programs				.50			
<i>Constructive deviance behaviour: (In your job, you...)</i>					(.87)		
Disobeyed your supervisor's instructions to perform more efficiently.					.82		
Did not follow the orders of your supervisor in order to improve work procedures.					.79		
Violated company procedures in order to solve a problem.					.74		
Departed from dysfunctional organizational policies or procedures to solve a problem.					.65		
Sought to bend or break the rules in order to perform your job.					.63		
Bent a rule to satisfy a customer's needs.					.62		
Reported a wrong-doing to co-workers to bring about a positive organizational change.					.26		
<i>Prosocial rule breaking co-worker aid:</i>						(.86)	
I break organizational rules if my co-workers need help with their duties						.78	
When another employee needs my help, I disobey organizational policies to help him/her						.77	
I help out other employees, even if it means disregarding organizational policies						.70	
<i>Prosocial rule breaking efficiency:</i>							(.77)
When organizational rules interfere with my job duties, I break those rules						.41	.53
I ignore organizational rules to "cut the red tape" and be a more effective worker							.52
I disobey company regulations that result in inefficiency for the organization							.48
I violate organizational policies to save the company time and money						.36	.31

Note. ($n_2=300$).The Cronbach's alpha corresponds to the number in brackets.

Before conducting the CFA second-order analysis, we performed correlation analyses on the S_t ($N = 600$). Table 5 shows the existent correlation between the 8 behaviours. High and moderate correlations indicate the potential models to test in our CFA second-order factors analysis.

Table 3.5. *Mean, Standard Deviation and Correlation among Behaviours Used in the CFA*

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. CDB interpersonal	2.50	.81	(.71)							
2. CDB organizational	2.57	.80	.76**	(.82)						
3. PSRB efficiency	2.59	.91	.45**	.28**	(.74)					
4. PSRB co-worker	3.16	.97	.36**	.38**	.57**	(.83)				
5. I generation	3.55	.74	.19**	.18**	.18**	.03	(.74)			
6. V constructive	3.33	.84	.31**	.31**	.19**	.12**	.50**	(.89)		
7. V supportive	3.33	.79	.22**	.22**	.13**	.09*	.30**	.63**	(.84)	
8. TC	3.75	.67	.25**	.23**	.16**	.07	.48**	.64**	.46**	(.90)

Note: $N = 600$; The Cronbach's alpha corresponds to the number in brackets; * $p < .05$, ** $p < .01$; CDB = constructive deviance behaviour, PSRB = prosocial rule breaking, I = innovation, V = voice, TC = taking charge.

To compare alternative structures between behaviours, we conducted a series of CFAs using *Mplus* 7.4 (Muthen & Muthen, 2015) with MLR and Geomin rotation. Fit statistics for the various models fit factors are showed in Table 6. Firstly, we conducted an analysis with a one-factor model in which all the items were loaded into a single factor (M1). This one had poor fit indices, suggesting that the deviance concept has not only one dimension. Secondly, we conducted an analysis with two factors in which PSRB and CDB loaded into one deviant factor, and V, TC, and IWB-generation items loaded into one proactive factor (M2). Analysis results showed poor fit indices for this model, suggesting that the construct dimensions were different from each other. Thirdly, assessing the link with the high correlation score between the two CDB's factors, the two PSRB factors, and the voice construct (Table 5), we analysed a five factor model with a unidimensional CDB's factor, same for the PSRB and voice factors (M3A). According to the EFA results (Table 4), we analysed a six factor model, following the same path as M3A with the CDB and PSRB dimensions, which were, this time, computed

into two unidimensional factors (M3B). Model M3A and M3B showed better models fit indices but the fit indices scores were not sufficient to retain the two models. Finally, we conducted an analysis with an 8-factor model in which each factor was distinct and correlated with each other (M4A). We obtained a very good fit to the data, suggesting that all of the studied behaviours are separate constructs. However, considering the CDB's unidimensionality observed in the EFA analysis (Table 4), we tested a model (M4B) with seven factors that presents a CDB unidimensional factor. Model M4B showed fit indices as good as the M4A model. In the end, we analysed the difference between the model M4A and M4b using the AIC and chi-square Satorra-Bentler analysis (Table 6). The results suggest that the M4A model was a better fit. In conclusion, the CFA shows that these behaviours are separate constructs, consistent with Hypothesis 5.

To assess the existence of two second-order factors, encompassing the constructive bright side (hypothesis 6a) and the constructive dark side (hypothesis 6b), we performed a CFA to compare the alternative models (see Table 6). Following the precedent factor analysis, the second-order analysis included an eight-factor model with a single second-order factor (M5); a plausible eight-factor model with two second-order factor (M6): dark side and bright side dimensions; and a plausible eight-factor model with two second-order factor (M7): relation and tasks dimensions. Model M5 and M7 showed bad fit indices. Furthermore, the M7 model had one of the first order factors loading as greater than 1 in the higher dimension, suggesting a non-adjusted model. Only the model M6 showed good fit indices and acceptable first-order score loadings greater than .51 on the second order dimension (See Figure 1).

Table 3.6. *Fit Indices for First-Order and Second Order Factor Models*

Model N.	Type	Model Description	χ^2	<i>df</i>	RMSEA	CFI	TLI	SRMR	AIC	χ^2 Difference
M1	FO	1-factor model in which all constructs dimensions item load on one underlying deviance factor	5449.002	629	.113	.50	.47	.13	57613.929	M1 vs M4A = 3050.64, <i>df</i> = 28, <i>p</i> < .01; M4A better
M2	FO	2-factor oblique model in which IWBg, V, TC items load on one proactive factor and PSRB, CDB items load on one deviant factor	3413.130	628	.08	.71	.69	.08	55262.622	M2 vs M4A = 1686.31, <i>df</i> = 27, <i>p</i> < .01; M4 better
M3A	FO	5-factor oblique model in which each construct items load on respective unidimensional factor	1090.956	619	.05	.86	.85	.06	53548.055	M3A vs M4A = 569.58, <i>df</i> = 18, <i>p</i> < .01; M4A better
M3B	FO	6-factor oblique model in which CDB and PSRB load on respective unidimensional factor.	1542.381	614	.05	.90	.89	.05	53134.369	M3B vs M4A = 290.49, <i>df</i> = 13, <i>p</i> < .01; M4A better
M4A	FO	8-factor oblique model in which each factor is distinct and correlated from each other	1356.514	601	.04	.92	.91	.05	52944.272	-
M4B	FO	7-factor oblique model in which CDB interpersonal and organizational load on one CDB dimension, and each factor is distinct and correlated from each other	1381.439	608	.04	.92	.91	.05	52960.122	M4B vs M4A = 162.47, <i>df</i> = 7, <i>p</i> < .01; M4A better
M5	H2	8-factor oblique model with one H2 factor in which all the 8 factor load; same as M4A with 1 H2 factor	2134.469	621	.06	.84	.83	.15	53782.932	M5 vs M6 = 1298.36, <i>df</i> = 1, <i>p</i> < .01; M6 better
M6	H2	8-Factor oblique model with two H2 factor: dark side and bright side; same as M4A with 2 H2 factor	1504.988	620	.04	.90	.90	.06	53076.269	M6 vs M4A = 287.02, <i>df</i> = 19, <i>p</i> < .01; M4A better
M7	H2	2-factor oblique model with two H2 factor: relation and task orientation; same as M4A with two H2 factor	2115.955	620	.06	.84	.83	.14	53760.232	M7 vs M6 = no possibility to composed Sattora-Bentler Chi2 (Same <i>df</i>). M6 better (AIC)

Note: *N* = 600. FO = First-order model; H2 = second-order model; RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR: standardized root mean square residual; AIC = Akaike information criterion.

The two second-order factors hypothesized were supported: based on the chi-square difference statistic and the AIC fit indices, we analysed the differences between the M4A and the M6, being the model M4 better (Table 6). Marsh, Ellis and Craven (2002) suggested to analyse the high similitudes between two models, for arguing that second-order models are better than the first-order models. For our case, following the previous analysis, the model M6 appeared to be acceptable. As shown in figure 1, the hypothesis 6a and 6b are supported.

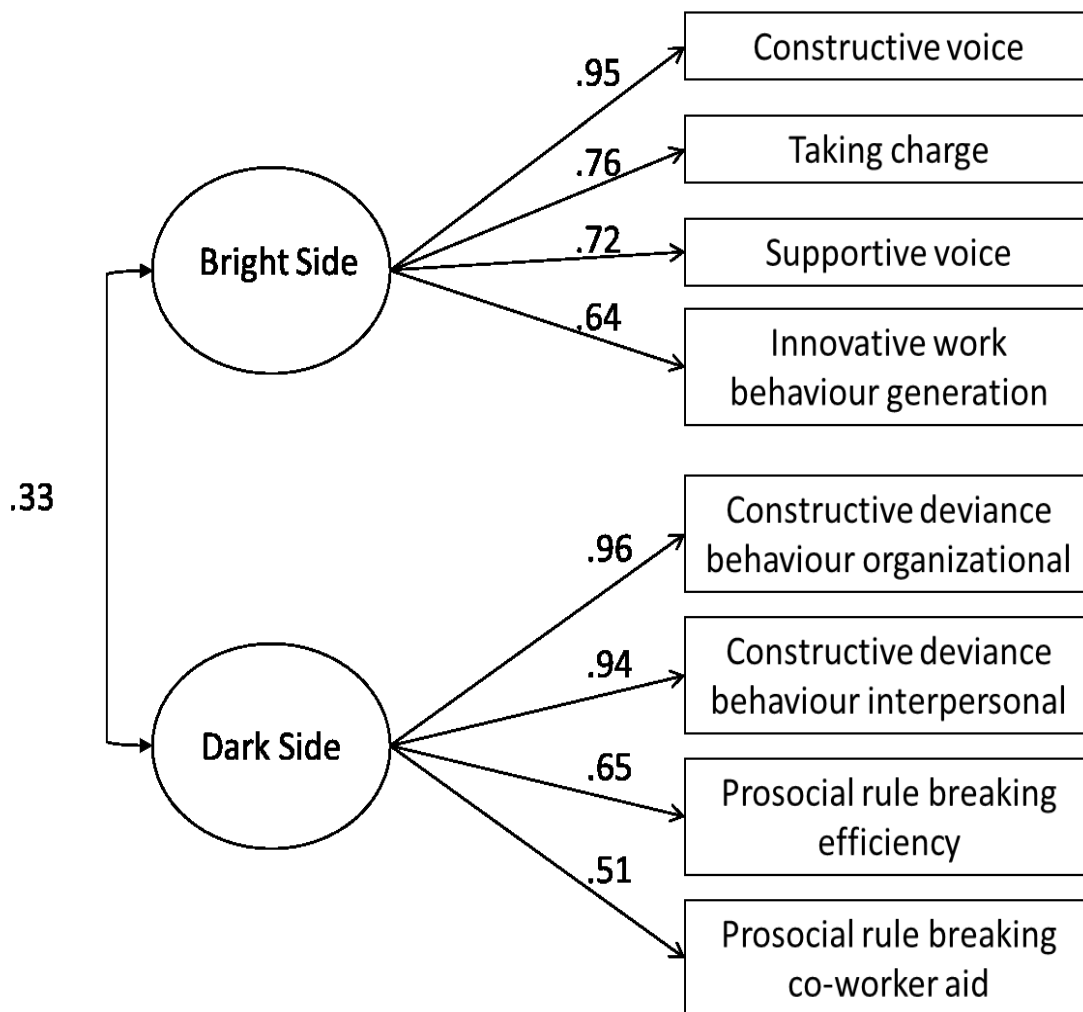


Figure 3.1. Second-order factor model: 8-factor oblique model with two second-order categories of constructive behaviours

3.6 General Discussion

The two purposes of this research were to propose a French validated version of the CDB scale and to explore the relation between certain related-constructs using second-order factor analysis. First, despite the high correlation between the CDB dimensions, we showed that the scale satisfies the construct validity condition. Second, in a field where there's a considerable growth on the number of studies, this one has explored the existence of two second-order factor dimensions in order to explain the relationship between related constructs.

As expected, correlations, first-order analysis, and second-order analysis suggested that CD umbrella behaviours are different constructs and that they contribute to two higher order factors. These results advise us on the bright and dark side constructs (see Figure 1). The difference between the two higher order factors highlights the specific nature of the studied behaviours that, even if they emerge from the same constructive intentions, load into different behavioural applications. As predicted the TC, V, and IWB-generation loaded into the same bright side dimension. These results are congruent with the research by Parker and Collins (2010). As we propose, the PSRB and CDB loaded into the higher order factor. These results highlight the fact that the CDB construct is not only a rule-breaking behaviour (Galperin, 2002). Furthermore, results on the low relationship between DD and PSRB are indicators of the difference between the CD and DD intention. To summarize, the PSRB is a prosocial behaviour that intends to make a positive act, such as CDB which follows the same positive aiming; unlike DD which supposes harmful acts (Robinson & Bennett, 1995).

The two second-order factors seem to be in agreement with the CD and CI literature. First, this study has shown the existence of a relationship between deviant behaviours and proactive behaviours as proposed by Vadera et al. (2013). Second, the analysis of the difference between the concepts, by the study of first-order factors, was well explored as suggested by

Potočník and Anderson (2016). However, the two second-order factor loadings supposed a disparity between them. These results contrasted with the CD umbrella conception that's supposed to encompass the different constructs into one higher order factor. It seems, despite the moderate relation between the two higher order factors, that there might be a mistake in the conceptualization of CD umbrella behaviours. This could be explained as construct confusion. Our proposition argues that the bright side refers to potentially deviant behaviours, while the dark side refers to conceptually acted deviant behaviours. This repartition showed a disparity between the "could be" and the "to be" and could indicate a clear separation on the perception of the two sides. Furthermore, all the behaviours studied in this paper can be perceived like using a deviant elaboration to produce positive change or innovation (Dahling et al., 2012; Galperin, 2002, 2012; Potočník & Anderson, 2016; Vadera et al., 2013). A common point is a necessity of a divergent thinking (Anderson et al., 2004), aimed towards a positive intent, that should predict the constructive behavioural action. In conclusion, the construct confusion could be explained by the voluntary interest of researchers to encompass all constructive divergent behaviours under a CD umbrella concept, against the possibility to propose an integration of the deviant behaviours under the CI-related concepts dimensions. The constructive bright and dark side higher factors are propositions that could lead to the integration of behaviours that depart from the norms in a positive CI intent and initiate change and innovation within the organizational context.

3.6.1 Limitations and Implications for Future Research

Despite the contributions of this article, this research has limitations that must be considered. The use of self-reported of deviance behaviours has a further specific limitation, which is that this approach may artificially inflate some of the relations we found. Despite this limitation, some studies support the validity of self-report measures (Ones, Viswesvaren, &

Schmidt, 1993). These behaviours need internal constructive intents in their realization, which could be difficult to be evaluated by others.

Nevertheless, some of the scales contained strong languages like "violate", or "break", which could raise socially desirable responses. However, like specified by Dahling et al. (2012), workers who choose to act in a prosocial deviant purpose should not show moderate responses in their ratings. In this study, we analysed the relationship between two deviant behaviours, future research should consider the introduction of news items for the DD's scale which showed low statistical fidelity.

A third limitation is linked to the fact that we only selected some of the constructs proposed by the scholars. In the analysis, we did not include all the CI and CD umbrella proposed behaviours. The sample was too small to include new behaviours in our research, so we selected the primary constructs common to the CI and CD umbrella concepts. In the case of OCB, the construct was excluded from the analysis as it presented low correlation with other constructs. We invite scholars to explore the interaction between TC, V, IWB-generation, CDB, PSRB, and new constructs associated with the constructive intent to provide change and innovate.

A final limitation refers to the non-investigation of the commonalities and points differences between the two second-order factors. We demonstrated the existence of a relationship between all the studying behaviours and the existence of higher factors, but we did not explore the common/divergent antecedents or consequences. As specified by Potočnik and Anderson (2016), we recommend further research to explore the common and specified antecedents of the CI bright and dark side; a path already well mapped by Vadera et al., (2013). We do the same recommendations for the analysis of the divergent or common consequences of this study constructs. For example, the CI-related constructs are dispositional and oriented towards constructiveness. Scholars should empirically explore the relationship between these

behaviours and the IWB-promotion and -realizations dimensions. A dynamic model should be considered to explain the innovative effects of the dark and bright sides (see Acharya & Taylor, 2012). Another point to detail would be the analysis of the dynamics underlying the establishment of behaviour; scholars should explore the question of "why an individual will develop a behavioural response corresponding to one side rather than the other". The last axe to explore related the timeline effect on the evolution of behaviours which could depend on the organizational, team, and individual contexts.

3.6.2 Conclusion

The contribution of our paper is the opening of a new approach. Indeed, the positive deviant behaviours should be integrated into the CI-construct analysis in further research. Furthermore, this study provides significant results like the CDB scale adaptations that can be used within French contexts. Following the current research popularity on CD, future studies would need to analyse in detail the underlying processes of deviance and the organizational and attitudinal determinants or consequences of this concept.

Chapter 4 – Article 3**Relationship between Constructive Dark and Bright Side, and Outcomes: the Mediating role of Innovative Work Behaviour****Abstract**

The aim of this study is to analyse the role of innovative work behaviour (IWB) as a mediator between “constructive dark side” (CDS), “constructive bright side” (CBS; chapter 3) and their outcomes (affective commitment, AC; well-being, distress; turnover intent, TI) on a sample of French workers. First, we briefly discuss innovation research in the organizational context. Then, we detail CDS (composed of deviant behaviours), CBS (composed of proactive behaviours) and their different potential outcomes, introducing a discussion on the mediating role of IWB. Three hundred and ten French workers ($M= 35$ years, $SD=11$, with 84% of female), recruited from social networks, responded to the survey twice (with a six month delay). Our paper sheds light on a new model of mediation including CDS and CBS constructs with their outcomes, mediated by IWB-implementation. No relationship was observed between CDS and IWB-implementation, which calls into question the innovative impact of deviant behaviours. Only negative relationships between CDS and AC were observed. Yet, a total mediation by IWB-implementation exists between CBS and their outcomes (AC, well-being, distress, TI). Thus, proactive behaviours could produce different outcomes, and they could be key-antecedents for IWB-implementation.

Keywords: proactivity, positive deviance, innovation-implementation, commitment, psychological health

4.1 Introduction

In a context where organizations have to innovate in order to survive and proliferate (Battistelli, 2015), the emergence of constructive behaviours, oriented towards change and innovation, is decisive to the organization's sustainability which is more and more expected (Grant & Ashford, 2008; Grant & Parker, 2009; Spreitzer & Sonenshein, 2004). In the literature of work and organizational psychology, a large number of researchers have been interested in analysing the behavioural aspects of generating, promoting, and implementing innovation and change at different levels of analysis (Anderson, Potočnik, & Zhou, 2014). Moreover, for the essential nature of initiating and succeeding the processes of innovation and change, in previous years, a field of analysis has opened up in order to be able to explore all the behaviours relating to these processes; we will borrow from Potočnik and Anderson (2016) the term Change and Innovation (CI) when we discuss all of these different concepts. Nevertheless, the primary objective of behavioural actions related to CIs is oriented towards the same constructive direction, thus, reinforcing the interest in analysing the similarities of some constructs (Tornau & Frese, 2013). Conceptual differences between these approaches are observable (e.g., Parker & Collins, 2010; Ohly, Sonnentag, & Pluntke, 2006). Adding to this, a lack of conceptual clarity between the constructs raised previous CI-level research (see Potočnik & Anderson, 2016). Unable to perform an exhaustive analysis of the differences and similarities between CI-constructs, we propose to analyse specific aspects of CI behaviours. In this study, we focus on the mediating role of innovative work behaviour (IWB) between two groups of behaviours, likely to be related to the CI literature (proactive behaviours and positive deviance behaviours), and their outcomes. Indeed, there is a variety of constructs which can be relied on CI (see Potočnik & Anderson, 2016), and some of them refer to the constructive dark side (CDS) and constructive bright side (CBS) dimensions (chapter 3). In this research, we focus our attention on four related

behaviours which are: taking charge (TC), voice, prosocial rule breaking (PSRB) and constructive deviant behaviour. These behaviours are oriented towards perspectives related to the realization of the task, others to the relational aspect, and some integrate into their conceptualization both notions. Task perspective has been largely explored, and a new challenge is to analyse the relational and proactive perspective (Grant & Parker, 2009). In our paper, we explore the proactive and deviant perspectives that are part of the CDS and CBS dimensions and focus our attention on the task aspect of the four behaviours examined in our research. Studying behaviours related to the constructs of CDS and CBS, through the task, will allow us to explore the existing relationship between the implementation of innovations, proactive behaviours, deviant behaviours, and their potential outcomes.

We proceed as follow: initially, we briefly discuss the organizational research on innovation, and we present proactivity and deviance dimensions. From this, we propose a research model including innovation as a mediator between CDS, CBS and their consequence constructs. Later, we detail the CDS, CBS, and outcome selected construct, and discuss on the mediating role of IWB. On the present paper, we examine four CI-related constructs, which had raised scholar interest for the last years: PSRB, constructive deviance, constructive voice, and TC. Obviously, PSRB and constructive deviance are related to the concept of CDS, and voice and TC are related to the CBS concept (Chapter 3). Regarding the selected outcomes of our paper, we focused our attention on well-being at work, distress at work, organizational affective commitment (AC), and turnover intent (TI). Figure 1 summarizes the entire hypothesized research model research. Following this, we described the used methodology for analysing our model based on a sample of 310 employees from different sectors and organizations. Finally, we present the findings of this study and discuss theoretical and practical implications.

4.2 Theoretical Background

4.2.1 Towards Innovation, Constructive Bright and Dark Side Dimensions

First of all, let us consider the existing likeliness and differences between CDS, CBS constructs, and implementing innovations. Innovation is composed of three phases: generation (production of creative idea), promotion, and implementation (Janssen, 2000; Kanter, 1988). A more recent approach to the innovation process proposes a two-stage conceptualization, it keeps the generation phase (creativity) and incorporates the promotion phase into the implementation stage (Anderson et al., 2014; Anderson, Potočnik, Bledow, Hulsheger, & Rosing, 2016; Hülshager, Anderson, & Salgado, 2009). Adding to this, Anderson et al. (2014), based on West and Farr's (1990) works, proposed that innovation should be defined as an integrative process that includes creativity. Following the innovation definition (Table 1), the idea generation phase refers to the individual's ability to generate new ideas, conceptually related to creativity (Anderson et al., 2014), that does not require the ability of individuals to seek support to promote and implement their innovative ideas. The innovation generation is also observed as related to voice and TC, and is empirically integrated into the CBS dimension (Chapter 3) but for our case we are mainly interested in the possibility that innovation could be one of the outcomes of CDS and CBS behaviours, which is why we only focus our attention on the implementation process. As previously argued, innovation implementation behaviours are constructs sharing similar characteristics which are oriented towards constructiveness, change, and innovation, with a construct such as proactivity (Potočnik & Anderson, 2016) and in some cases non-conforming behaviours (Chapter 3).

Proactive behaviours are defined as "taking initiative in improving current circumstances or creating new ones; it involves challenging the status quo rather than passively adapting to

present conditions" (Crant, 2000; p.436). In relation to the definition, the potential for improving, challenging, and creating phases of proactive behaviour are processes that include them into the CI-literature label (Potočnik & Anderson, 2016). Furthermore, individual innovation (Parker & Collins, 2010) and innovative work behaviour (IWB) generation (Chapter 3) were assessed as integrating constructs of the proactive work behaviour second-order factor. These studies analysed the relationship between proactive behaviours and showed the empirical existing relation between the concepts, but also highlighted the fact that, despite the constructive intent, these constructs are specifically different from each other. Second, positive deviance is defined as "intentional behaviours that depart from the norms of a referent group in honourable ways" (Spreitzer & Sonenshein, 2003). This definition referred to "honourable ways", refers to a departure from the norms that share similarities with the innovative and change processes. Two reasons to consider positive deviance integrated into the CI exists: the innovative intent, that's characterized by a look for innovative/non-conventional procedures to help its organization (Galperin, 2002), and the efficient intent (Dahling, Chau, Mayer, & Gregory, 2012) that can influence the innovative process. Positive deviance is indeed a constructive process that is related to creativity (Vadera, Pratt, & Mishra, 2013) and innovative behaviours (Galperin, 2002, 2012).

Despite the constructive and innovative notions of proactive and positive deviant behaviours, some studies have shown that these two concepts are different (Déprez, 2017; Galperin, 2012; Galperin & Burke, 2006). Following Vadera et al.'s (2013) reflexion, we conducted the analysis of a second-order factor regrouping TC, voice, constructive deviance and PSRB under the same dimension (chapter 3). The results show that there's not one unique factor, but two constructive higher order factors labelled "constructive dark side" (CDS) and "constructive bright side" (CBS) that are positively related to one another (Déprez et al., ns). The main point argued on the divergence between CDS and CBS, and that can have an impact on the

outcomes, is related to the departure from the norms process. CDS's behaviours are defined by specifying the violation of norms (Galperin, 2002), which is not the case for CBS behaviours considered as anticipatory actions taken by the employees (Grant & Ashford, 2008; Parker, Williams, & Turner, 2006). The violating CDS process is often considered by the organization as an act harming the interest of the organization, and also perceived as an employee challenging process of authorities that disrupt the well-being of the organization (Morrison, 2006). On the contrary, CBS is characterized by a more mundane dimension and a less radical behaviour expression. Indeed, CBS's behaviours can be perceived as following the managerial expectations, in the fact that they can be required by the job and be an answer to organizational demands (Griffin, Neal, & Parker, 2007). Finally, CDS are perceived, most of the time, as disruptive for personal relationships (Galperin, 2012), which is not the case for the CBS's construct that can take more discretionary and conventional forms (Ohly & Fritz, 2010). To summarize, there's no empirical evidence that the two CI dimensions follow the same direction.

Table 4.1. *Name's Variables, Authors, Used Dimensions and Respective Definitions*

	Principal Authors	Dimensions	Definitions	Higher dimension
Constructive deviance behaviour	Galperin (2002) Spreitzer & Sonenshein (2004) Warren (2003)	- Interpersonal* - Organizational*	Voluntary behaviour that violates significant organizational norms and in doing so contributes to the well-being of an organization, its members, or both	Constructive dark side
Prosocial rule breaking	Dahling, Chau, Mayer, & Gregory (2012) Morrison (2006)	- Efficiency* - Co-worker aid - Customer help	Intentional violation of a formal organizational policy, regulation, or prohibition with the primary intention of promoting the welfare of the organization or one of its stakeholders	Constructive dark side
Taking charge	Morrison & Phelps (1999) Chiaburu & Baker (2006)	- Taking charge*	Voluntary and constructive efforts, by individual employees, to effect organizationally functional change with respect to how work is executed within the contexts of their jobs, work units, or organizations	Constructive bright side
Voice	Maynes & Podsakoff (2013) Van Dyne & LePine (1998)	- Constructive* - Supportive - Defensive - Destructive	Individual's voluntary and open communication directed toward individuals within the organization that is focused on influencing the context of the work environment	Constructive bright side
Innovative work behaviour	Janssen (2000) West and Farr (1990)	- Generation - Promotion* - Realization*	Intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization	-
Affective commitment	Bentein, Vandenberghe, Vandenberg, & Stinglhamber (2005) Allen & Meyer (1990)	- Affective*	Represents the idea that one's commitment to the organization is driven simply by an emotional attachment to and identification with the organization.	-
Psychological Well-being at Work	Gilbert, Dagenais-Desmarais, & Savoie (2011) Dagenais-Desmarais & Savoie (2012)	- Mental balance - Involvement* - Harmony	A construct describing an individual's subjective positive experience at work, and comprises five primarily eudemonic dimensions, namely, Interpersonal Fit at Work, Thriving at Work, Feeling of Competency at Work, Perceived Recognition at Work, and Desire for Involvement at Work	-
Turnover intent	Griffeth, Hom, & Gaertner (2000)	- Turnover intent*	individual intentions to quit, and in turn, to place intentions to quit as the immediate precursor to actual turnover behavior	-
Psychological Distress at work	Gilbert, Dagenais-Desmarais, & Savoie (2011) Massé et al. (1998)	- Anxiety - Disengagement* - Aggressivity	Represent the negative aspect of the psychological health and is determined by three dimensions: the anxiety, disengagement and Aggressivity	-

Note. *used dimensions in the CFA and SEM analysis ;

4.2.2 CBS and CDS Behaviours and their Relation to the Innovation Implementation

A common agreement in the literature is the impact of CDS and CBS behaviours on innovation, creativity, change (Galperin, 2002, 2012; Howell & Higgins, 1990; Binnewies, Ohly, & Sonnentag, 2007; Rank, Pace, & Frese, 2004; Shalley, Zhou, & Oldman, 2004; Tornau & Frese, 2013). Most of the CDS and CBS behaviours are related to innovation, each of them targets, at the minimum, one specific Janssen's (2000) innovative dimension: generation, promotion, or implementation. For example, CDS should be more related to the generation-phase due to the individual's search for innovative ways to perform procedures and the development of creative solutions to problems (Galperin & Burke, 2006). Moreover, strictly following all organizational norms may reduce workers' innovative propensity to create novelty (Vadera et al., 2013). Furthermore, researchers have proposed that employees who perform nonconforming behaviours can be the root of successful innovations (Galperin, 2012; Howell, Shea, & Higgins, 2005). On CBS constructs, research into proactive behaviours has demonstrated that the role played by CBS intervened in each phase of innovation (Frese & Fray, 2001). As an illustration, the generation process could be enhanced by proactive behaviours in situations requiring an organizational improvement (Tornau & Frese, 2013). With respect to the promotion and implementation phases, similar proactive constructs such as taking charge (TC) and voice are related to them; TC more specifically to the implementation and voice to the promotion phase (Potočník & Anderson, 2016). Thus, it seems quite important that researchers empirically examine the role played by CDS and CBS behaviours in the innovation process.

4.2.2.1 Voice

Although the CDS and CBS behaviours are considered in our article as embedded in CI-related constructs, they differ from innovation. For example, voice behaviour, which is examined in the exit, voice, loyalty, and neglect models as a response to discontent (Hirschman, 1970), was considered an extra-role behaviour (Van-dyne & LePine, 1998) and, nowadays, as a proactive behaviour (Morrison, 2011; Parker & Collins, 2010; Tornau & Frese, 2013) that could be expressed by promotive or prohibitive forms (Liang, Farh, & Farh, 2012). The promotive form is composed of two factors, the constructive and supportive voice, and refers to the individual's propensity to speak up constructively and promote change; the prohibitive form refers to behaviours focused at hindering and is composed of two factors: defensive and destructive voice (Maynes & Podsakoff, 2014). This four voice dimensions approach brings out an essential characteristic of voice behaviour: the constructive aspect, which requires acting proactively and thinking about issues in advance. As constructive voice refers to behaviours that allow suggesting improvements to task procedures and proposing ideas for new or more effective methods (Maynes & Podsakoff, 2014), it appears to be related to innovation and creativity. But voice differs from innovation in the fact that it is not required by the job and does not involve novelty (Parker & Collins, 2010) whereas implementation does (Potočnik & Anderson, 2016). Furthermore, voice behaviour is also different from creativity by his operationalization and measurement (Unsworth, 2001).

4.2.2.2 Taking charge

TC is another CBS concept that's related to innovation but differs from it. Although it was originally introduced as a type of extra-role behaviour (Morrison & Phelps, 1998) taking charge is one of the most important concepts in the proactivity literature (Tornau & Frese, 2013). First, it

seems that individuals who enjoy a high degree of autonomy, and who perceive that the behaviour of TC is expected by their superiors, are likely to perform this behaviour (Dysvik, Kuvaas, & Buch, 2016). Second, this construct is empirically and theoretically similar to voice, which explains the existence of the second-order factor CBS (Déprez et al., ns; Parker & Collins, 2010). Whereas voice is about sharing opinions, TC has a more concrete facet, relative to the realization of the task, that makes it play an important role by promoting innovation and change (Moon, Kamdar, Mayer, & Takeuchi, 2008). The applicative characteristic of TC relates to the effort to introduce changes on the works' execution, which supposes the existence of a relation with the innovation implementation process (Potočnik & Anderson, 2016). However, the TC does not require novelty as an outcome (Madjar, Oldman, & Pratt, 2002) and is self-initiated, which is not necessarily the case for the innovation implementation process (Potočnik & Anderson, 2016).

4.2.2.3 Constructive Deviance

In the case of CDS behaviours, constructive deviant behaviour is also a concept that is related to innovation but differs from it in several manners. Based on its definition, constructive deviant behaviour can involve innovation to improve well-being at all the organizational levels (Galperin, 2002). Indeed, the constructive deviance construct is involved on three types of actions (Galperin, 2002; Galperin & Burke, 2006): the organizational innovation (aiming to help the organization), the interpersonal interaction (alerting organizational authorities to bring positive changes) and the search for challenges at organizational levels (challenge seeking to support organizational improvement). The other specificity of the constructive deviant behaviour is the propensity of individuals to act in counter-normative ways and bring-out a constructive change. This non-normative characteristic is directed towards two target forms (Galperin, 2012), one is the interpersonal dimension (behaviour geared towards individuals, whether at the colleagues or

supervisor levels) and the other is the organizational dimension (challenging or breaking existing standards to help the organization). Moreover, whatever the target of constructive deviant behaviour is, the voluntary norms violating process with the intention of making a change, is an act that can be related to innovative work behaviour; which depends on the situation (Anderson, 2004). Despite the constructive intent of constructive deviance, and despite the fact that innovation and constructive deviance are challenging the status-quo, innovation is different because being counter-normative it's not systematically required.

4.2.2.4 Prosocial Rule Breaking

The other behaviour that we chose to analyse, as a CDS construct and that could be related to the innovation, is PSRB which is more associated to the rules breaking process. PSRB is a form of positive deviance that only goes against the formal rule or policy, rather than to be a non-normative process (Morrison, 2006). It pursues three complementary goals: research for efficiency, helping a customer for providing better service, and helping a co-worker to perform more proficiently (Dahling et al., 2012; Morrison, 2006). These three goals are focalized on the pro-social effect of the rule breaking process; however, the two dimensions of providing help are more centralized on the social interaction results whereas the efficiency dimension is more related to task performance and change. The individual, in order to be more efficient, breaks the rules, which is linked to the process of innovation, as, in some cases, the individual have to disregard certain rules in order to implement or generate novel ideas (Nemeth, 1997). Furthermore, when transformational leaders encourage subordinates to challenge the status-quo, it fosters PSRB and IWB actions (Huang, Lu, & Wang, 2014). However, PSRB is a prosocial behaviour that does not require novelty and is always following a breaking rule process which is not typical of innovation.

To summarize, voice and TC are behaviours that are included in CBS, and PSRB and constructive deviance in the CDS. The behaviours that compose these two dimensions differ from the implementation innovation process. However, some empirical studies on proactive behaviours (e.g., Binnewies, Ohly, & Sonnentag, 2007; Tornau & Frese, 2013) show that proactivity predicts the innovation process (no matter the involved phase; e.g., Frese & Fay, 2001). Furthermore, studies on CDS behaviours showed the same positive relationship between innovation and positive deviant behaviours (Galperin, 2012; Huang et al., 2014). Consequently, we formulate the following assumptions:

Hypothesis 1a. The CBS construct will be positively related to the innovation implementation process.

Hypothesis 1b. The CDS construct will be positively related to the innovation implementation process.

4.2.3 Constructive Dark Side, Constructive Bright Side and Respective Outcomes

The relationship between innovation and the dimensions of CDS and CBS is one of the most important aspects to consider, but there are also other issues to explore. Indeed, constructs related to innovation, specifically CDS and CBS, would be predictive of multiple outcomes such as performance (e.g., Griffin et al., 2007), well-being (e.g., Galperin, 2012), commitment (Tornau & Frese, 2013), as well as receiving rewards (e.g., VanScotter, Motowildo, & Cross, 2000) or being punished (e.g., Miceli & Near, 1988; Warren, 2003). However, the preventive nature of some constructs and the non-normative nature of others supposes the possible existence of an opposite effect on the impact of various variables. If we refer to actual works on proactivity and deviance, few studies have examined potential outcomes of proactive behaviours (Grant & Ashford, 2008), deviant behaviours (Mertens, Recker, Kummer, Kohlborn, & Viaene, 2016), or innovative work behaviours (e.g., Montani et al., 2014). In this way, on the following section, we analyse the relationship between CDS, CBS and AC, TI and psychological health involvement.

Concerning psychological health, we analyse separately its two dimensional aspects, psychological well-being and psychological distress as they share a complementary and contradictory interaction (Gilbert, Dagenais-Desmarais, & Savoie, 2011). Thus, we are able to deal with two categories of consequences, corresponding to the positive aspect, which is composed of AC and well-being, and also the negative aspect, which consists of TI and distress.

4.2.3.1 Deviance Behaviours and Proactive Behaviour as relating to the Affective Commitment and the Well-Being at Work: Effect from CDS and CBS Constructs on Positives Outcomes

4.2.3.1.1 Affective Commitment

A first consequence of CDS and CBS behaviours to analyse should be the study of organizational commitment. Research on commitment to the organization over the last thirty years has been one of the main themes of work-related studies. Allen and Meyer (1990) present organizational commitment as a construct composed of three factors: affective, continuity, and normative. The first is an emotional attachment to the organization, the second one is based on perceived costs related to the possibility of a break with the company, and the latter corresponds to loyalty to the organization. Following this analysis, continuity commitment is composed of two dimensions: commitment to perceived sacrifices and lack of alternatives (Stinglhamber, Bentein, & Vandenberghe, 2002). The relationship between proactivity and commitment remains questionable, although individuals involved in their organization show more effort and investment (Den Hartog & Belschack, 2007); although, this does not prove that involvement is a sign of proactivity (Parker, et al., 2006). However, a link between proactivity and AC has been demonstrated (Den Hartog & Belschak, 2007; Thomas, Whitman, & Viswesvaran, 2010; Tornau & Frese, 2013). Although weaker, there is also a relationship between commitment and proactive

behaviours such as voice and TC (Tornau & Frese, 2013). Due to the specific nature of proactive behaviours, engagement – in the relationship that binds these two variables – is generally seen as an antecedent. If we take the case of voice behaviours their implementation could be a function of the individual's AC towards the organization. Concerning deviant behaviours, positive relationships have been observed between constructive deviant behaviour and the workaholism involvement factor, predicting a positive relationship between CDS constructs and commitment (Galperin & Burke, 2006). According to these studies, for our study, we only focus our attention on the AC dimension. Hence, we propose that:

Hypothesis 2a. The CBS construct will be positively related to the AC dimension.

Hypothesis 2b. The CDS construct will be positively related to the AC dimension.

4.2.3.1.2 Well-Being

A second outcome to investigate, according to the constructive nature of the CDS and CBS constructs, is well-being at work. Psychological well-being at work refers to two research perspectives (hedonic and eudemonic, aspects not developed in this paper). We use the three dimensions approach of well-being developed by Gilbert et al. (2011). Adapted to the work context by Gilbert et al. (2011), based on Massé et al. (1998), this model presents well-being at work as composed by three individual dimensions directed towards oneself at work (serenity), towards the implications in front of work (involvement), and towards the respect regarding the individuals' entourage at work (social harmony). In consistency with their respective definitions, CDS and CBS constructs should have a positive effect on well-being at work. Indeed, research analysed the link across well-being and proactive behaviours indicating a positive link between the two variables (Plomp et al., 2016), although most of studies (e.g., Belschak, Den Hartog, & Fay, 2010) do not directly treat well-being but refer to connected variables, such as job satisfaction (Wanberg & Kammeyer-Mueller, 2000) or positive affect (Greenglass &

Fiksenbaum, 2009). Regarding CDS, constructive deviance behaviours and PSRB are considered as a way to improve personal well-being, colleague's well-being, customer well-being, and the organizational well-being in which they operate (Dahling et al., 2012; Galperin, 2012). Thus, CDS and CBS behaviour should have a positive effect on employee psychological well-being. To evaluate this relationship we focused on dimensions related to Gilbert et al.'s (2011) model. Based on this, we formulate the following assumptions:

Hypothesis 3a. The CBS construct will be positively related to the psychological well-being involvement construct.

Hypothesis 3b. The CDS construct will be positively related to the psychological well-being involvement construct.

4.2.3.2 Deviance Behaviours and Proactive Behaviour as relating to Turnover Intent and to Distress at Work: Effect of CDS and CBS Constructs on Negative Outcomes

4.2.3.2.1 Turnover Intent

A third outcome of CDS and CBS to examine should be the intent of individuals to leave the company. Foremost, literature on organizational commitment is strongly related to employee intention to leave the organization. Indeed, negative relationships between different types of engagement and intention to leave have been demonstrated (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), but there is also a positive relationship between commitment to continuity and intent to leave (Vandenberghe, Panaccio, & Ben Ayed, 2011). This is why, several models are focused on the processes that leads an individual to leave the company (see, Bentein, Vanderberg, Vandenberghe, & Stinglhamber, 2005; Griffeth, Hom, & Gaertner, 2000) which suggest that, in some cases, the departure may be positive (e.g., non-performing employees, destructive deviant workers...), but in most cases these studies suggest a negative aspect attributable to the organization (Griffeth & Hom, 2001; Staw, 1980). Hence, the implementation of behaviours oriented towards improvement, such as CDS and CBS, could indicate a

commitment towards the organization due to their preventive and constructive natures. Based on the premise that individuals who act proactively, or deviate from norms, proceed with a view of making constructive changes in order to improve their living conditions at work, it is unlikely that these workers will consider to leave their organization. These behaviours could be negatively related to intention to leave the company due to their oriented nature of promoting change and innovation. Therefore, we propose that:

Hypothesis 4a. The CBS construct will be negatively related to TI.

Hypothesis 4b. The CDS construct will be negatively related to TI.

4.2.3.2.2 Distress

The last outcome to analyse is the effect of the CDS and CBS behaviours on the individual's distress rate. The negative dimension of psychological health is referred as psychological distress. Rather than being an opposite pole to well-being, studies showed that the two dimensions are different axes (Gilbert et al., 2011; Karademas 2007; Massé et al., 1998). As well as the concept of well-being, psychological distress is composed of three dimensions: the first one refers to oneself and is related to anxiety or depression; the second one is related to involvement in work, and is expressed by disengagement behaviours; and the third dimension is directed towards the work entourage, and is expressed by irritability and aggressiveness (Gilbert et al., 2011). It's important to examine distress due to the idea that if an individual has low welfare scores this doesn't mean that he, or she, is in a situation of distress at work (see Achille, 2003). Some studies argue on the "dark side" effect of proactive behaviours (Spychala & Sonnentag, 2011) and showed that these constructs can have negative consequences (Bolino, Valcea, & Harvey, 2010) and lead to high levels of stress, role-overload, and work-family conflict (Bolino & Turney, 2005; Grant, 2008), possibly due to investment costs and organizational pressures (Grant & Ashford, 2008). Furthermore, situations characterized by high

levels of interpersonal conflict impact task performance of proactive agents and increase their probability of developing a burnout situation more than non-proactive workers (Harvey, Blouin, & Stout, 2006). Regarding behaviours related to CDS, being in a situation of non-respect for the rules, or deviance to norms, whether constructively or destructively, generates a certain discomfort (Galperin, 2012; Galperin & Burke, 2006; Morrison, 2006). Indeed, to be in a violating process, despite the intent to improve, could disrupt well-being and lead the deviant actor towards psychological distress. Based on these assumptions, we propose that:

Hypothesis 5a. The CBS construct will be positively related to the psychological distress disengagement dimension.

Hypothesis 5b. The CDS construct will be positively related to the psychological distress disengagement dimension.

4.2.4 The CBS and CDS Constructs and their Outcomes: The Mediating Role of the Innovation Implementation

The dynamic aspect of CDS (Acharya & Taylor, 2012) and CBS (Grant & Parker, 2008) is likely to change the relationship between them and their outcomes. As previously stated, the multiple behaviours integrated into each dimension pursue a goal of constructive contribution, evolution, innovation or change (Déprez, et al., ns). However, as stated by several authors (e.g., Grant & Ashford, 2008; Warren, 2003), CI behaviours follow a temporal dynamic that involves evolution, construction, and interaction with individuals, the environment and the organization over time. Hence, the introduction of proactive behaviours, when successful, implies the reproduction of the same behaviours (Weick, 1984) or the development of new behaviours. This same premise applies to behaviours of positive deviance that intent to change (Spreitzer & Sonenshein, 2004) and, thus, have a tendency towards an integrative behavioural evolution (Vadera et al., 2013; Warren, 2003). In view of the strong links between the dimensions of CDS and CBS with innovation, one of the possible transformations should be the production of

innovative behaviours at work. Moreover, IWB should have a non-negligible mediating effect on the relationship between the two dimensions and their outcomes.

Innovation implementation has been largely studied, but scholars have not developed an analysis of its potential outcomes (see Anderson et al., 2014). However, a positive relationship between AC and innovation has been demonstrated (Battistelli & Picci, 2008), and according to the literature on commitment, a negative relationship with TI exists (Griffeth et al., 2000). Furthermore, studies on well-being showed a positive effect of climate for innovation on well-being (Talvelin, Armelius, & Westerberg, 2011), or argued on the positive impact of the economical-effects of innovation on the well-being process (Tompa, 2002). However, people who score high levels of individual innovative behaviours are more likely to start a conflict with their co-workers, disrupting their work relationships (Janssen, 2000) and increasing distress. Moreover, IWB is likely to occur when individuals are in distress situations and have to make changes in order to cope with it (Anderson et al., 2004). On these situations, the implementation of innovations reduces the distress effect and could improve well-being. However, in a situation where the employee's departure is attributable to the organization in which he operates, contextual factors are likely to mediate the link between the enactment of behaviours and the intention to leave. On the specific case where innovation is the consequence of CDS or CBS constructs, it should lower the TI and the personal distress rates. Regarding the relationship maintained between the constructs of CDS and CBS, and the probable existing links with the presented outcomes, we present the innovation implementation variable as a mediator.

Therefore, we argue that:

Hypothesis 6. Innovation implementation will be positively related to the positive outcomes AC (6a) and psychological well-being (6b).

Hypothesis 7. Innovation implementation will be negatively related to the negative outcomes turnover intention (7a) and psychological distress (7b).

Hypothesis 8a. Innovation implementation will mediate the relationship between CDS and the analysed outcomes.

Hypothesis 8b. Innovation implementation will mediate the relationship between CBS and the analysed outcomes.

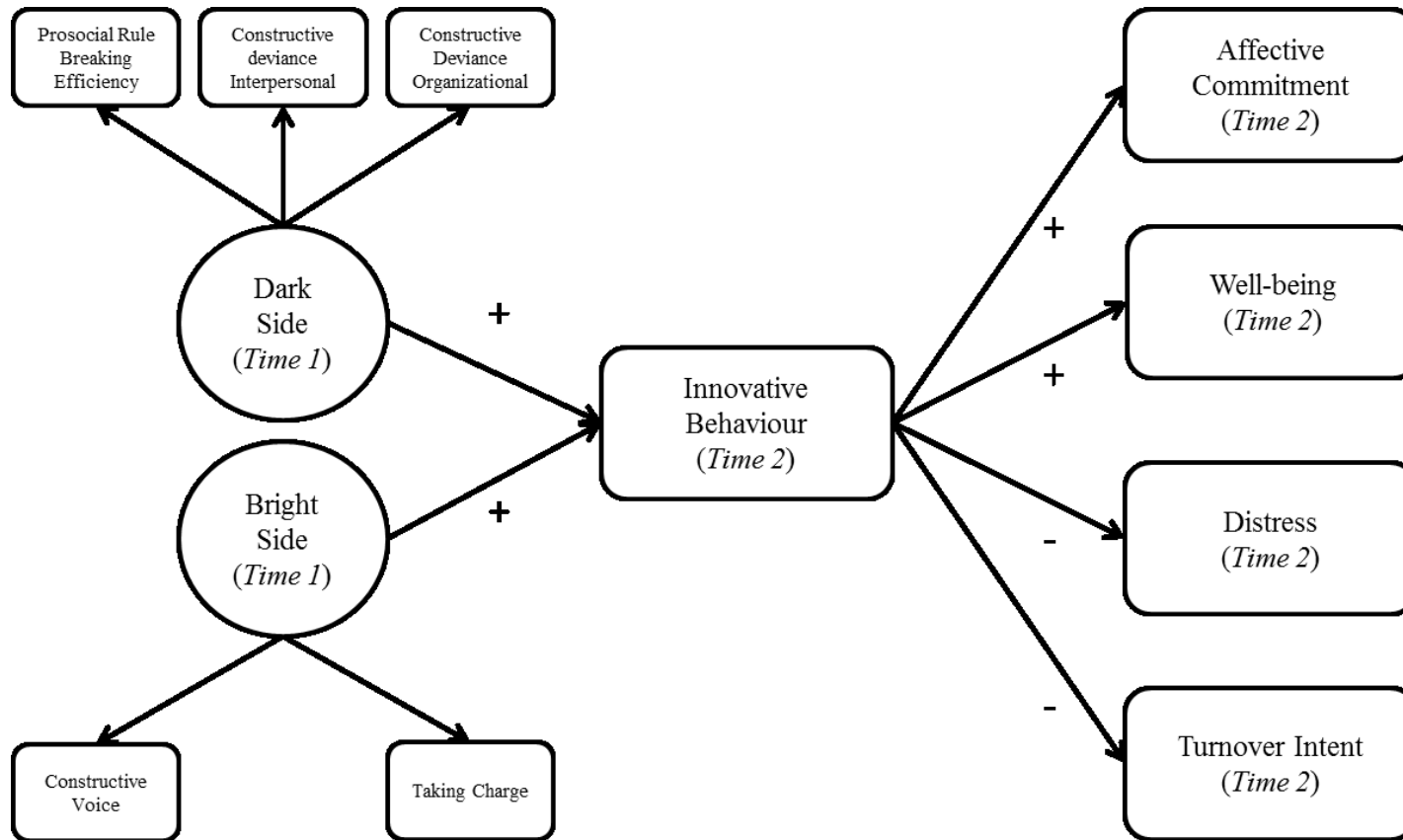


Figure 4.1. Hypothesized Research model

4.3 Method

4.3.1 Sample and Procedure

To test our hypotheses, we used a two-times-measures survey research design, applied to full-time job French workers – corresponding at least to an employment contract of 35 hours per week – and recruited by the use of certain social networks (e.g., Facebook, LinkedIn, Viadeo...). The first survey collection (time 1) began in April 2015. We invited respondents of the first collecting phase to participate on the second survey via individual e-mailing; the email addresses were collected via the first survey phase. We used a process coding to identify the participants and assured the anonymity of each of them. In order to ensure a suitable delay between response time 1 and 2, we allowed at least six months between the response time of the last participant and the second survey collection.

The initial study sample included 515 employees working in different organizations. A total of 350 employees participated on the second survey; forty of them were removed from the sample due to incomplete replies, which yielded a final sample of 310 workers. Regarding sample characteristics, the majority of the employees were female (84%), and worked in private organizations (52%). The sample had an average age of 35 years ($SD = 11$), with 37.7 percent having between 25 and 35 years, and 21.6 percent between 35 and 45 years. Some of the respondents were managers (35.1%) and the majority of the participants (79.4%) were employees in their organization since, at least, one year. With regard to organizations, five sectors emerged: research (15.1%), trade (17.7%), medical health (25.5%), social services (22.3%), and finances (19.4%). The majority of the participants had a time response of more than six months (56%) between collection time 1 and 2, and no turnover between the two times was observed.

All variables, whether independent, mediation, or outcomes, were collected in a self-reported manner. Despite the promotion of studies integrating the superior's perspective, some research supports the validity of self-report measures (Ones, Viswesvaren, & Schmidt, 1993). Moreover, although using self-reported data may lead to misleading interpretations of results due to common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), some of the observed variables (the innovation process, PSRB, or constructive deviant behaviour) benefit by being analysed by self-report ratings (Dahling et al., 2012; Galperin, 2012; Montani, Odoardi, & Battistelli, 2014). Finally, the self-report rating procedure was consistent with the recruitment process by the social networks that did not allow us to access the supervisor's ratings.

4.3.2 Measures

4.3.2.1 Dark side

We used the constructive deviant behaviour and the PSRB scale, at time 1, to evaluate the CDS dimension. The 7-item scale (1 = "never" to 5 = "always") developed by Galperin (2012) and translated by Déprez et al. (ns) was used to assess employees' constructive deviant behaviour. The scale is composed of two factors: "interpersonal constructive deviance" and "organizational constructive deviance". Some examples of the items are "Did not follow the orders of your supervisor in order to improve work procedures" and "Violated company procedures in order to solve a problem". To analyse the efficiency factor of the PSRB scale, we used four items translated by Déprez (ns) from the 13-items Dahling et al. (2012) original scale. Examples of items are "I ignore organizational rules to ‘cut the red tape’ and be a more effective worker" and "I violate organizational policies to save the company time and money".

4.3.2.2 Bright side

To evaluate the CBS dimension, at time 1, we used the TC and voice scales. The 10-item scale (1 = “strongly disagree” to 5 = “strongly agree”) was developed by Morrison and Phelps (1998). Examples of items are “I often try to climate redundant or unnecessary procedures” and "I often try to correct a faulty procedure or practice". To assess voice behaviour, we used five items of the voice factor from the 20-item scale (1 = “strongly disagree” to 5 = “strongly agree”) developed by Maynes and Podsakoff (2013). Examples of items are “Frequently makes suggestions about how to improve work methods or practices” and "Often suggests changes to work projects in order to make them better".

4.3.2.3 Innovative Work Behaviour

We measured IWB with Janssen’s (2000) scale (1 = "never" to 5 = "always") at time 2. For this study, the generation factor was not measured; we thus only used the 6-items in a one-dimensional factor which grouped promotion and implementation phases. According to Anderson et al.’s (2014) suggestions, we analyse the innovation process by the three items from the implementation dimension and the three items from promotion dimensions. The one-dimensionality of innovative work behaviour has been empirically supported in a number of studies (e.g., Leung, Huang, Su, & Lu, 2011). Examples of items are “Acquiring approval for innovative ideas” or "Evaluating the utility of innovative ideas".

4.3.2.4 Affective Commitment

We used the Bentein et al. (2005) French adaptation scale, of the Meyer et al.’s (1993) tool, to measure the AC variable at time 2 with a five point Likert scale (1 = strongly disagree, 5 = strongly agree). An item example is “I am proud to belong to this organization”.

4.3.2.5 Turnover Intent

To measure the intent to quit the organization, at time 2, we used Vandenberghe (2008) works. This scale is composed of 3 items and evaluates the individual intention to leave the company (1 = “strongly disagree” to 5 = “strongly agree”). These items are an adaptation of Hom and Griffeth (1991) and Jaros (1997) and have been used in previous studies (Bentein et al., 2005; Vandenberghe et al., 2004). An example of item is “I often think about quitting the organization”.

4.3.2.6 Psychological Health at Work

We measured psychological health by using the Massé et al.’s (1998) instrument adapted to be anchored into the work context (Gilbert et al., 2011). The scale (1 = "almost never" to 5 = "almost always") makes it possible to assess well-being and distress at work, at time 2. This scale has 24-items and measures well-being as composed by three factors: work implication, harmonious relationships, and personal happiness. The distress dimension is evaluated by a 21-item scale and is composed of: anxiety/depression, irritability/aggression, and work disengagement. For this study, we choose to only use the negative and positive psychological health dimension related to the relationship of the individual to his or her work. Therefore, we used the five items for well-being work implication and the six items for distress work disengagement. These scales have been used in previous studies (e.g., Boudrias et al., 2014). For the positive part an example of item is “I feel healthy and in good shape”, and for the negative part an example is “I feel like throwing everything to the wind, quitting”.

4.3.4 Analyses

To assess structural equation models, we first conducted a confirmatory factor analysis (CFA), using maximum likelihood with robust standard errors (MLR) via *Mplus7.4* (Muthen & Muthen, 2015), on the entire measurement model to examine if the 10 measurement scales were distinct from one another. Secondly, we introduced the second-order factor analysis in the model to determine if it fits better than the first-order measurement (Table 2). In link with Kline's (2016) recommendations to interpret the model fit indices, we examined different indices (for more details see Tabachnick & Fidell, 2012): the root mean square error of approximation (RMSEA), the chi-square value (χ^2) and degree of freedom (df), the ratio of the χ^2 divided by its degrees of freedom (χ^2/df), the comparative fit index (CFI), the Tucker-Lewis index (TLI), the Standardized root mean square residual (SRMR), and the Akaike information criterion (AIC).

4.3.5 Results

The results of the CFAs measurement model suggested that the ten first-order factor (M9) fit the data better than the other first order factors ($\chi^2(1987.240) = 1226, p < .001; \chi^2/df = 1.62; RMSEA = .05; CFI = .91; TLI = .90; SRMR = .06; AIC = 39050.565$). We introduced several second-order factors into our model analysis (Table 2), it occurred that the model fitted better than the ten first-order factors measurement model ($\chi^2(2004.955) = 1245, p < .001; \chi^2/df = 1.61; RMSEA = .04; CFI = .91; TLI = .90; SRMR = .06; AIC = 39029.925$). These results allowed us to keep the higher order factors model measurement (M1) to test our research model.

Table 3 reports the main descriptive statistics and correlations among the ten primary latent variables. The internal consistency values were acceptable and showed satisfactory scores for the analysed variables (.75 to .92), except for the interpersonal constructive deviance behaviour that loaded a low score ($\alpha = .68$). Concerning the correlation results, the two

constructive deviant behaviour dimensions were highly correlated ($r = .78, p < .01$), same for the voice and TC variables ($r = .64, p < .01$). However, the measurement analysis models (M11 and M14) provide the idea that it's better to keep separated the different constructs. Moreover, contrary to what we expected, not all predictors were significantly related to innovation, indicating a possible non-existence of a mediating effect between the CDS dimension and the implementation innovation variable. The same effect was observed for the direct relationship between some predictors of the CDS dimensions and their hypothetical outcomes. In this case, we performed common analysis to test hypothesis 1 to 5.

To test hypotheses 8a and 8b we used the four Shrout and Bolger (2002) recommendations for mediation analyses: [1] the relationship between mediators and independent variables are significant (hypothesis 1a and 1b); [2] the relationship between the mediator and dependent variables is significant (Hypothesis 6 and 7); [3] the product of the indirect paths from the independent variable to the dependent variable by the mediator is significant; and [4] the direct relationship between independent and dependent variables is not significant in the presence of the mediator; all the mediation analysis were conducted by bootstrapping tests. First, we analysed the relationship between CDS, CBS, and implementation of the innovation. As tested with hypothesis 1a and 1b, and shown in table 4, only the CBS dimension was significant. These results allowed us to refuse hypothesis 8a, thus we concluded the analysis concerning the possible mediation of Innovation between the CDS predictor and its outcomes.

Table 4.2. Model Measurement Fit Indices for Assessed the Differences between the Variables

Model N.	Model Description	χ^2	df	χ^2/df	RMSEA	CFI	TLI	SRMR	AIC
Measurement model									
M1	2 second order factor (regrouping PSRB, CDI and CDO, and CV and TC)	2004.955	1245	1,6104	.04	.91	.90	.06	39029.925
M2	1 second order factor (regrouping CV and TC)	1989.104	1233	1,6132	.04	.91	.90	.06	39038.188
M4	1 second order factor (regrouping PSRB, CDI and CDO)	2003.612	1240	1,6158	.04	.91	.90	.06	39038.412
M5	4 second order factor (regrouping PSRB, CDI and CDO, and CV and TC, and IWB, AC, and WB, and D and TI)	2105.570	1255	1,6777	.04	.90	.89	.84	39119.054
M6	3 second order factor (regrouping PSRB, CDI, CDO, CV and TC, and AC and WB, and D and TI)	2271.283	1256	1,8083	.05	.88	.87	.13	39297.139
M7	3 second order factor (regrouping PSRB, CDI, CDO, CV and TC, and IWB, AC and WB, and D and TI)	2287.053	1258	1,8180	.05	.88	.87	.13	39309.772
M8	1 second order factor combining all the variables	2713.232	1261	2,1517	.06	.83	.82	.18	39765.881
M9	10 model factor	1987.240	1226	1,6209	.05	.91	.90	.06	39050.565
M10	9 model factor (D and TI)	2576.237	1235	2,0860	.05	.84	.83	.06	39672.178
M11	9 model factor (combining CV and TC)	2289.321	1235	1,8537	.05	.88	.87	.06	39360.692
M12	9 model factor (AC and WB)	2387.742	1235	1,9334	.05	.87	.86	.06	39466.024
M13	8 model factor (IWB, AC and WB)	2890.382	1243	2,3253	.06	.81	.80	.09	39993.850
M14	8-model factor (combining PSRB, CDI and CDO)	2148.132	1243	1,7282	.04	.89	.89	.06	39193.800
M15	8-model factor (combining AC and WB, and D and TI)	2968.637	1243	2,3883	.06	.80	.79	.07	40082.009
M16	7-model factor (combining IWB, AC and WB, and D and TI)	3467.899	1250	2,7743	.07	.75	.73	.09	40607.620
M17	7-model factor (combining PSRB, CDI, and CDO, and CV and TC)	2446.283	1250	1,9570	.05	.86	.85	.06	39507.761
M18	7-model factor (combining AC, WB, D and TI)	3381.960	1250	2,7056	.07	.76	.74	.07	40527.272
M19	6-model factor (combining IWB, AC, WB, D and TI)	3912.822	1256	3,1153	.08	.70	.68	.10	41090.553
M20	6-model factor (combining PSRB, CDI, CDO, CV and TC)	3519.142	1256	2,8019	.07	.74	.73	.09	40666.574
M21	5-model factor (combining PSRB, CDI and CDO, and CV and TC, and AC and WB, and D and TI)	3424.978	1261	2,7161	.07	.75	.74	.08	40546.910
M22	4-model factor (combining PSRB, CDI and CDO, and CV and TC, and IWB, AC and WB, and D and TI)	3916.917	1265	3,0964	.08	.70	.68	.10	41070.857
M23	3-model factor (combining PSRB, CDI, CDO, CV and TC, and AC, WB, D and TI)	4892.453	1268	3,8584	.09	.59	.57	.11	42156.620
M24	2-factor model (combining PSRB, CDI, CDO, CV and TC, and IWB, AC, WB, D and TI)	5416.131	1270	4,2647	.10	.53	.51	.13	42720.547
M25	2-factor model (combining IWB, PSRB, CDI, CDO, CV and TC, and AC, WB, D and TI)	5262.679	1270	4,1438	.10	.55	.53	.12	42560.411
M26	model in which all constructs dimensions item load on one factor	7349.392	1271	5,7824	.12	.31	.28	.16	44592.463

Note: $N = 310$. RMSEA = root mean square error of approximation; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR: standardized root mean square residual; AIC = Akaike information criterion; IWB = innovative work behaviour; PSRB = prosocial rule breaking; CDI = constructive deviance interpersonal; CDO = constructive deviance organizational; CV = constructive voice; TC = taking charge; AC = affective commitment; WB = well-being; D = distress; TI = turnover intent.

Table 4.3. Mean, Standard Deviation and Correlation among Deviant Behaviours and among Theoretical Correlate Behaviours

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. CDB organizational	2.58	.83	(.82)									
2. CDB interpersonal	2.49	.81	.78**	(.68)								
3. PSRB efficiency	2.63	.95	.48**	.43**	(.75)							
4. Constructive voice	3.40	.82	.21**	.25**	.15**	(.88)						
5. Taking charge	3.74	.69	.15*	.23**	.16**	.64**	(.90)					
6. Innovative behaviour	3.19	.73	.07	.07	.02	.49**	.48**	(.86)				
7. Affective commitment	3.14	.93	-.11*	-.04	.06	.24**	.25**	.41**	(.90)			
8. Well-being	3.66	.86	-.07	-.07	.08	.16**	.17**	.41**	.56**	(.86)		
9. Distress	2.14	.94	.08	.09	-.00	-.08	-.10	-.21**	-.28**	-.52**	(.88)	
10. Turnover intent	2.71	1.46	-.06	-.06	-.02	-.09	-.08	-.22**	-.50**	-.58**	.46**	(.92)

Note. *N* = 310; The Cronbach's alpha corresponds to the number in brackets; **p* < .05, ***p* < .01; CDB = constructive deviance behaviour, PSRB = prosocial rule breaking.

Table 4.4. Bootstrapping Analyses of the Mediation Model and Indirect Path Results

	Affective commitment	Confidence interval	Well- Being	Confidence interval	Distress	Confidence interval	Turnover Intent	Confidence interval	Innovation SM1
<i>STDYX</i>									
Constructive Dark Side	-.16* (.06)		-.07 (.06)		.11 (.08)		.06 (.06)		-.09 (.06)
Constructive Bright Side	.00 (.10)		-.18 (.11)		.03 (.12)		.07 (.11)		.68** (.05)
Innovation	.45** (.09)		.59** (.10)		-.26* (.11)		-.31** (.10)		
<i>Indirect model^a</i>									
Total	.32**	.18 to .46	.22**	.05 to .37	-.14	-.30 to .01	-.14*	-.28 to .00	
Indirect total	.31**	.18 to .48	.40**	.26 to .59	-.17*	-.35 to -.03	-.21**	-.37 to -.08	
Direct	.00	-.28 to .22	-.18	-.47 to .03	.03	-.27 to .27	.07	-.14 to .29	
<i>R square</i>	.23**		.24**		.06		.07*		.45**

Note. *N* = 310; **p* < .05, ***p* < .01; Standardized coefficients are reported, with standard errors in parentheses; ^a CBS to IWB to concerned collums outcomes.

Second, we examined the relationship between implementation and its outcomes: AC, well-being, distress and TI. The results were all significant (table 4), thus validating the hypothesis 6 and 7 as expected, thereby completing the second condition. Thirdly, we analysed the existence of an indirect effect between CBS and its outcomes mediated by the innovation variable. The results suggest that the indirect paths carried by innovation implementation were significant (Table 4), thus the third condition was validated. Finally, we found that, when innovation mediator was present, no direct links between CBS and AC, well-being, distress, nor TI were found, thus, the non-direct significant relationship between independent and dependent variable was met (Table 4). These results suggest that implementation of innovation positively mediates the relationship between CBS dimensions and AC, as well as well-being, and negatively mediates the relationship between CBS dimensions and distress, as well as TI. Therefore, hypothesis 8b was supported. Concerning the hypothesis 8a, no mediation was observed, the only significant result was the negative relationship between the CDS dimension and AC (table 4). Figure 2 summarizes the findings of our analyses.

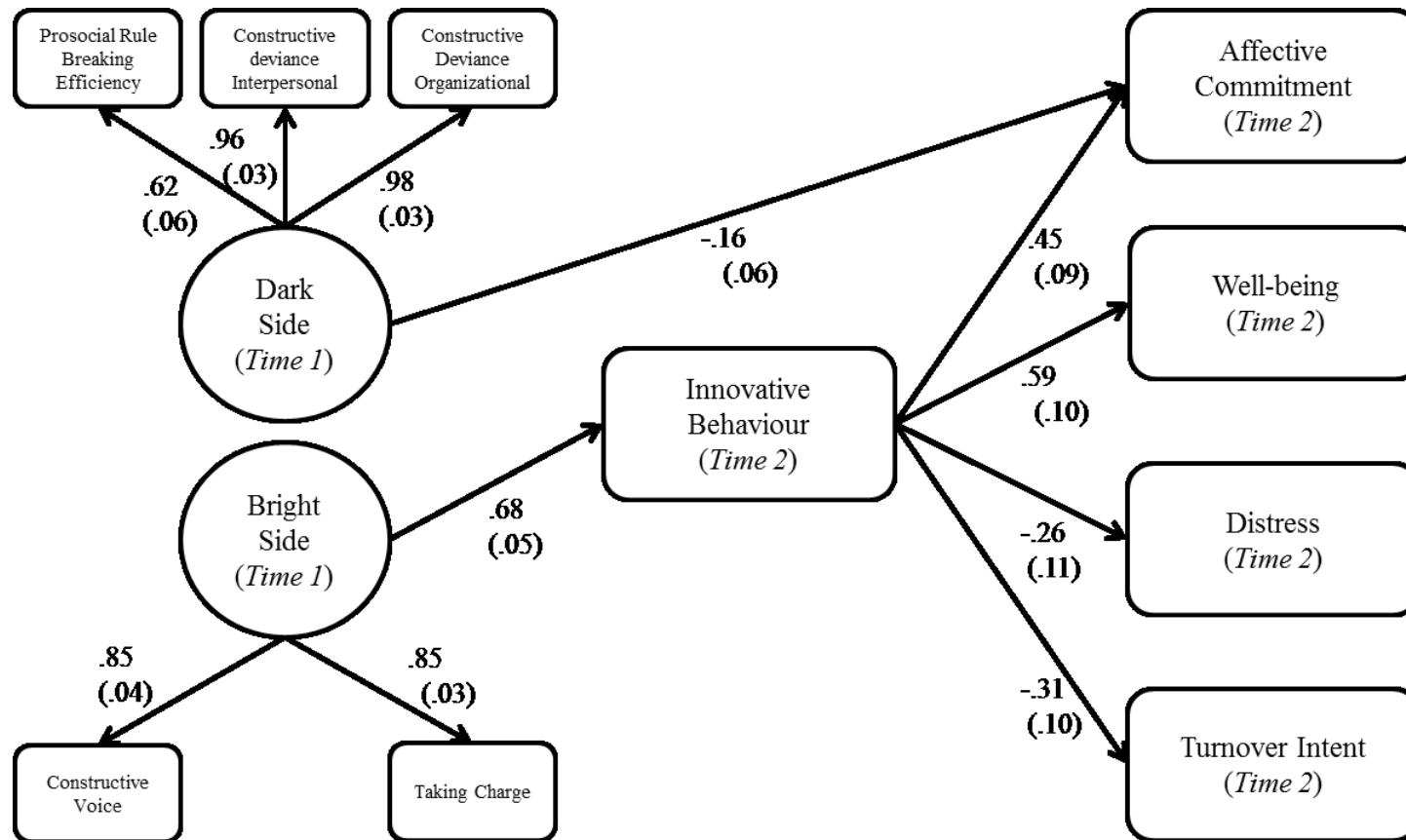


Figure 4.2. Summarized of significant findings with standardized estimates, with in bracket parameter estimates.

4.4 Discussion

The aim of this study was to explore the relationship between individual construct dimensions (CDS and CBS) with positive outcomes (AC and psychological well-being at work) and negative outcomes (TI and psychological distress at work), through IWB. As shown in Figure 2, the research model was partially supported, only the relationship between the CBS dimension to the proposed outcomes was mediated by IWB. Moreover, we didn't find a relationship between CDS and IWB, only a negative relationship between CDS and AC, which contradicts Hypothesis 2b. Although partially validated, the model raises questions and implications to which we have endeavoured to answer.

4.4.1 Theoretical Implications

Prior literature has indicated that people who engage in proactive, or deviant behaviours, are more inclined to initiate innovative processes (Galperin, 2012; Tornau & Frese, 2013). However, it was not clear whether such behaviours could benefit the implementation of innovations at work, as well as their relationship with outcomes such as commitment and psychological health. Our study sheds new light on this matter by demonstrating that CDS constructs have no effect on innovation, psychological health, or intention to leave the company. On the other hand, the behaviours related to CBS had an impact on the proposed outcomes, all the more so when the workers put in place behaviours of innovation implementation. These results are theoretically relevant.

A first, essentially theoretical, contribution of this study is related to CDS behaviour. As explained in the results section, only one link has been observed between the CDS and its possible outcomes. Indeed, only hypothesis 2b obtained significant results; opposed to the

expected results. The analyses showed that there is a negative relationship between AC and the CDS dimension.

In view of the definitions of behaviours inscribed into the CDS dimension, behaviours oriented towards organizational improvement (Dahling et al., 2012; Galperin, 2002), and close relations with workaholism (Galperin & Burke, 2006), we supposed that AC would be positively related to the CDS construct. However, it appears that the establishment of CDS would be predictive of a decrease in AC. This can be explained by the fact that behaviours of constructive deviance require opposition and violation of established norms (Warren, 2003), a process that can put the deviant individual into a constant conflict with his peers, superiors, and organization, negatively affecting the AC of the deviant actor towards his or her organization. As observed, this does not imply any intention to leave the organization, nor impacts its psychological health. We also assumed that the relationship between AC and CDS behaviour was mediated by innovation implementation. Unfortunately, no link was found between CDS and innovation implementation behaviour. This lack of linkages can be explained by the fact that employees that engage in the process of implementing innovation are likely to be constantly exposed to others' judgments, mockery, gossip, and stigmatization, which can reduce their efforts to engage towards the implementation of innovation (Anderson et al., 2014; Fay & Huttges, 2016). In a situation of deviance, it's possible that these harmful behaviours could inhibit more greatly the implementation process. However, the absence of a link between the CDS and the innovation implementation does not make it possible to reject the possible contribution of constructive deviant behaviour to the entirety of the innovation process. Indeed, at the conceptual level, the constructive deviant behaviour would be more oriented towards idea generation (e.g., Nemeth, 1997; Vadera et al., 2013), since it seems reasonable to assume that to implement an innovation the worker must exchange, interact, and promote innovation through a process perceived to be in

accordance with the organizational dynamics, which the constructive deviant behaviour and the PSRB do not allow (see Spychala & Sonnentag, 2011). Future research should profit from these results to explore the link between CDS in the generation of ideas or creativity.

A second contribution of the study is related to the CBS dimensions. Contrary to the results obtained for the CDS assumptions, the CBS dimension confirms most of the assumptions presented in this article; since hypothesis 5a could not be validated. The results highlight the assumed positive contribution of proactive behaviours on emotional engagement, as proposed by Tornau and Frese (2013), and on psychological well-being, as assumed by Plomp et al. (2016). On the other hand, proactive behaviour would also have a positive effect on the intention to leave the organization (Tornau & Frese, 2013); indeed, the application of proactivity would reduce the intention to depart of employees. However, there's no direct link between psychological distress and CBS. This can be explained by the fact that proactive task efficiency does not affect the individual distress. Moreover, taking into account the dynamic and evolving character of proactive behaviours, it is possible that at time 2, at which we carried out the data collection, the proactive actor did not have the possibility to reduce or generate psychological distress. Effective proactive behaviours have a high personal investment cost, whether at the organizational or personal level (Grant & Ashford, 2008) and could lead to high stress scores (Bolino & Turney, 2005). Moreover, let us recall that the dimension of psychological distress at work that we evaluated is that of disengagement (Bentein et al., 2011). A final relationship regarding CBS, which is fundamental, is the direct link between CBS and the innovation implementation. This result validates hypothesis 1a on the positive effect of proactive behaviours on the processes of implementing innovation in an organizational context (Binnewies et al., 2007; Ohly et al., 2006; Tornau & Fresse, 2013). Therefore, leaders promoting proactive behaviours will increase the well-being of their employees and reduce their intention to leave the organization.

The third contribution of this research and perhaps the most important, is linked to the mediating role of the innovation implementation behaviour, intervening between the dimension of CBS and its outcomes. As the link between innovation and the CDS dimension is not validated, only hypothesis 8b is significant. The results are in line with our assumptions because the analysis of the indirect links (Table 4) between the variables reveals a total mediation on the part of the implementation behaviour. Moreover, an indirect link between the dimension of CBS and psychological distress follows the insertion of the implementation of innovation; a non-existent link in the direct model. This implies a major role of innovation for the relationship between proactive behaviours and the proposed outcomes. Moreover, these results indicate that innovation is not only produced through ideas or creative behaviour, but also, as proposed by Tornau and Frese (2013), through proactive behavioural enactment. The results of this research open the door to new lines of research. For example, as suggested by Bolino and Grant (2016) in the case of prosocial behaviours, it would be adequate to explore the positive and negative slopes of this mediation, via a longitudinal perspective, in order to observe the effects of repetition on multiple consequences. Indeed, innovation would play a catalytic role in establishing a practical reality for proactive actors and thus improving their lived experience at work. Being innovative, however, involves challenging the status quo, conflict with colleagues or supervisors, or “breaking off the beaten path” to promote innovation, thus generating negative affect on the innovative actor (Anderson et al., 2014; Janssen, 2003; Spsychala & Sonnentag, 2011). Therefore, future research should focus on a temporal perspective on personal and contextual factors that may change the positive relationship between proactive behaviour and innovative behaviour.

Finally, a last contribution of the study concerns the theory related to the ICs and the apparent differences on the dimensions of CBS and CDS. Indeed, this research allows us to show that the behaviours integrated into the dimensions of CDS and CBS are indeed constructs

disputes (Déprez et al., Ns) because of their non-similar direction and consequence. Although each of these is considered as CI constructs, the lack of a link between the innovation implementation and the CDS behaviour raises the issue of the innovation contribution by CDS. As previously postulated, it would be necessary to investigate the relationship between CDS and idea generation, which has already shown a positive link in the past (Galperin, 2002, 2012). Another point raised is the consequence of implementing CI behaviours. Indeed, the study seems to indicate, as postulated by Potočnik & Anderson (2016), that behaviours relating to CIs may have different, if not opposite, consequences. This can be explained by the different conceptual nature of the two dimensions studied, one being proactive (CBS) based on prevention (Grant & Ashford, 2008), and the other being of deviant nature (CDS) based on the violation of norms (Galperin, 2012; Warren, 2003) and breaking rules (Dahling et al., 2012). Despite the fact that constructive aspect is common to these CI behaviours, we have observed differences with respect to their outcomes. We can, therefore, postulate that the dimensions of CDS and CBS have behaviours that are distinct from one another. Future research on the analysis of CDS and CBS should focus on the existence of common and distinct backgrounds. Researchers should also develop a line of research on the positive and negative aspects (see Bolino & Grant, 2016) of each of the CDS and CBS constructs, allowing a better understanding of each factor, considering a single common factor to each of the constructive behaviours related to CI.

4.4.2 Limitations and Future Research Directions

Although our research sheds light on theoretical concepts, it has several limitations. First, we focused exclusively on the collection of self-rated questionnaires; a common methodological bias that is likely to have inflated the magnitude of the correlation results between the variables. However, we used a two time procedure recruitment to reduce the causality bias. Moreover, the

use of self-reported scales makes it possible to analyse more deeply the individual processes underlying our model. Future studies should focus on multilevel longitudinal analyses to capture a larger part of the organizational process. Second, one of the main limitations of our sample is related to the nature of the sample. Indeed, this one is of small size which makes difficult the generalization of our sample. This is why it would make sense to analyse our model with larger samples, which would also make it possible to analyse whether gender differences are likely to occur (this sample is essentially composed of women). Finally, a last limitation related to the sample is the choice of the organizational context. Indeed, we have a sample composed of multiple organizations; it would be good for future studies to reproduce the analyses on a fixed organizational context because the implementation of the behaviours studied could be contextual.

4.4.3 Conclusion

This study was an effort to develop and test an integrative model of the consequences of two behavioural dimensions related to CIs, in which innovation implementation behaviour played a mediating role. We obtained results indicating that the CDS and CBS dimensions had different consequences depending on the dimension studied. This research opens up new perspectives on the relationship between proactive behaviour and innovative behaviour. This is why we suggest, for example, future research to study the effect that this model can have in the team context.

Chapter 5 – General Discussion

5.1 Discussion Drafting Plan

Theoretical implications and limitations were presented at the end of each article, and therefore, we are not echoing them here. On the current chapter, we briefly review aims and results of each research. Afterward, we discuss the general implications of this dissertation. Then, we consider general limitations of our work. Finally, we examine future research directions.

5.2 Brief Review of Developed Articles

The aim of this dissertation was to study the constructive deviance nomological network (Galperin, 2012; Vadera et al., 2013; Warren, 2003) and its relation with change and innovation-related constructs (Potočnik & Anderson, 2016). To explore the constructive deviance dimension, we first analysed the attitudinal aspect of deviance. Detached from the principles of constructivity or destructiveness, we showed, through the creation of a measure, that there is an attitudinal aspect of deviance but also of normativity. We have also shown that there is a correlation between deviant attitudes and behaviours of constructive deviance, but also with proactive behaviours. The study on the conformity aspect also informed us about the negative relationship between individual propensity to normativity and these behaviours.

Following these results, we studied the behavioural aspect of constructive deviance. We first proposed a French-language translation of Galperin's constructive deviance behaviour scale (2012). The scale validity analysis showed that, as proposed by Galperin (2012), the scale was composed of two dimensions (interpersonal and organizational) and was well connected to close concepts such as prosocial rule breaking (Dahling et al., 2012) or innovative work behaviour (Janseen, 2000). According to these results, by performing a CFA, we tested the existence of a second-order factor combining behaviours that can be considered as deviant (Vadera et al., 2013).

The results obtained showed that there are two higher factors: one grouping proactive behaviours (CBS) and the other one grouping deviant behaviours (CDS). A moderate correlation between the two factors was observed, indicating that there was a relation between.

In order to determine the existing relationship between CDS and CBS factors, we conducted a study on the possible outcomes shared by them. An analysis of the mediating role of the innovation implementation has also been studied. Results on the relationship with the outcomes indicated that the two second order factors were quite different from each other by their impact on their respective outcomes. Indeed, CDS had negative relationship with affective commitment, the only observed link regarding this factor. The CBS relationship with its outcomes was completely mediated by the innovation implementation construct. In addition, this mediating effect of innovation opens up new possibilities for constructive deviance, proactivity, or even the role of innovation. In sum, through the series of studies conducted in this dissertation, we were able to explore, from the point of view of change and innovation, the three constructive deviance approaches (attitudinal, behavioural, and an agglomerate of behaviours). However, above all, we have observed that deviance was a specific construct which, although similar in some respects, could not be confused with other theoretically close constructs.

5.3 Implications

The entirety of this dissertation raises new matters and general implications about the study on... Firstly, as for the CI related construct, scholars who study constructive deviance must well define what construct, concept, and process they examine. Indeed, as Potočnik and Anderson (2016) warned us, it is important to specify the studied constructs in order to avoid *construct drift*, *construct confusion* or *construct contamination* situations. Therefore, scholars need to determine adequately which theoretical approach to deviance they are using, what aspects

(relational or task-related) they are studying, or whether the behaviour they have chosen is indeed a behaviour specific to CDS and not just a divergent behaviour that does not, in any way, violate organizational norms. Indeed, as we have shown, behaviours as taking charge or voice are susceptible to be perceived as deviant by leaders, other team members, or customers (Vadera et al., 2013). However, the context and primary intention of the deviant agent is determinant on its constructiveness. Moreover, the propensity of the agent to conform or deviate is essential to the behavioural output result, which can lead from positive deviance/conformity to destructive deviance/conformity (Warren, 2003). It is, therefore, the responsibility of organizations to dissociate destructive actions from constructive actions, and behaviours from attitudes, in order to provide the optimal response to constructive actions that can bear fruit conducive to change and innovation. We thus propose the analysis of the attitudinal approach, rather than the behavioural conceptualization that could be examined as secondary process. It's essential to explore the dynamical process between deviant attitude and CBS or CDS with their respective outcomes; as the relationship between attitudinal aspects with the enactment of innovation generation or implementation process.

Thereby, during implementation context oriented towards change and innovation, it will be necessary to encourage climates conducive to CBS rather than to CDS. For example, targeting contexts in which responsibility and accountability are promoted should generate proactive behaviours (Grant & Ashford, 2008) and thus impact the implementation of innovation as we have been able to see in the previous chapter. However, the ambiguity must be a context to avoid, because in most cases it leads to insecurity and can favour the emergence of CDS that are not related to innovation implementation, or have a negative effect on the team climate and thus reduce performance in an innovative situation (Gonzalez-Roma & Hernandez, 2016). Giving the opportunity to individuals with high levels of role overload, and individuals with high level in

future orientation (Strauss & Parker, in press), should also benefit the interaction between CBS construct and innovation. However, in situations of disruptive innovation, it is necessary to consider the importance of deviant attitudes and constructive deviant behaviours in order to allow the emergence of new behavioural dynamics.

One last implication to explore concerns the relation between CDS, CBS and their effect on work design. As proposed in chapter 3, CDS and CBS are change and innovative related-constructs. Therefore, they have an impact at all levels of the organization and on their environment. For example, proactive agents are employees that model their work environment to their convenience, they can insufflate new vision, values and identities to their organization (Ashforth & Schinoff, 2016). Therefore, CBS related-constructs directly impact their organizational work design (Parker, Morgeson, & Johns, 2017). The same observation is true for the CDS constructs, if we consider the deviance dynamical approach. Indeed, as specified by Moscovici (1987), the deviant phase leads to active minority which has a direct impact on the majority and could, depending on the context and power relations, restructure the entirety of the majority's identity. This is why, in change and innovative contexts, the correct use of CDS and CBS, by an advice leader, can direct the organization towards a completely new world. However, it will be necessary to promote CBS or CDS depending on the context, the vision, and the goals related to the different phases (generation, promotion, and implementation) of change and the innovation process. CDS, as we saw, if it does not evolve into recognizing and valuing behaviour it could lead to dark side outcomes (see Bolino & Grant, 2016); which was a decrease on affective commitment in our case. Constructive agents thus have an essential impact on their work design, nevertheless, an adequate context and a fertile climate for a perennial evolution remain decisive.

5.4 Limitations

The main limit of our study, which is found on each of the articles, is related to the nature of the different samples studied. Although a recruitment of participants in each of the studies was carried out using specific selection criteria, recruitment through social networks does not account for a precise and defined organizational context. However, this type of recruitment allows an overall rendering on the analysis of behaviours such as CBS and CDS. Indeed, it is optimal to study a general context that can be found in most organizational situations. This is why the nature of our data has more of a theoretical than a practical impact on this dissertation. It reflects a general context specific to the workplace and to the organizational perceptions by the individuals who evolve there. However, this type of recruitment does not allow the study of behaviour at all the levels of the organization, as it mainly favours self-reported responses.

A second limitation that has been widely discussed in our three articles is related to self-report. This is a methodological and statistical issue, but as stated on most articles, our choice of self-report questionnaires was justified by the study on behavioural factors specific to the individual, and also by the recruitment method which did not allow the study of other organizational levels. Therefore, it will be necessary to explore more closely the levels associated with the interaction with the supervisor, teams, and organizations. It will also be necessary to examine the attitudinal and behavioural approaches, no longer at the individual level, but as a practice of organizational governance (Aguilera, Judge, & Terjesen, 2016) and at the team level. Thus, it would be adequate to develop the links related to the team and organizational levels of CBS and CDS.

A third limitation of this research concerns axes that could not be studied. We list three approaches that could not be developed but that could have provided further information on the nature of CDS and CBS and their relationship with attitudes of conformity and deviance. First, it

would have been wise to analyze in more detail the relational aspect of CDS, CBS, and their outcomes. Indeed, it is necessary to understand the nature and the emergence of behaviours such as the CBS to also be interested in the relational aspect (Grant & Parker, 2009); this hasn't been widely studied in our research. Second, it would have been interesting to analyze the possible existence of a relationship between NDAS factors and behavioural outcomes such as CDS, CBS or innovation. Indeed, according to the Ajzen model (1988), attitudinal factors, depending on the context, predict behavioural set-up. Finally, as noted above, we have not been able to observe a link between the CDS and the innovation implementation and assume that there is a link between the CDS and the innovation generation (Chapter 3 & 4). However, once we assume that there is a temporal relationship between CDS and the generation of innovation, we need to question the relationship between CDS and CBS. Indeed, since the innovation generation dimension fits into the CDS constructs, contrary to what has been proposed in Chapter 3, it is necessary to consider that the CDS and CBS are not analyzable as similar behaviours, but as an evolutionary process that is likely to lead to innovation. It is therefore also necessary to consider that CDS is a potential preliminary phase in the development of CBS, because when CDS is a direct behavioural response (Galperin, 2002) the CBS have a strategic and preventive dynamic (Strauss & Parker, in press).

A final limitation that we have noted in this research is related to the contextual and cultural aspect of both CDS and CBS. Indeed, the set of results that we obtained is dependent on different French organizational contexts. Despite the general aspect of individual dynamics, one cannot target a specific organizational context. Yet this is not a problem for our studies as they focused on the individual perceptual aspect of CDS and CBS implementation by the respondents. However, it will be necessary for future research to control the organizational context (Aguilera et al., 2016) in which individuals, likely to set up CDS or CBS, evolve. So far, little is known

about the differences and similarities across cultures in terms of the meaning of CDS and CBS, the differences in level, specific manifestations, and support or hindering factors of these work behaviours. Thus, it will be useful to take into account the national and organizational culture in the study of the development of these behaviours.

5.5 Research Perspectives

First, future research can profit of replicate our studies on specific populations, because, as we have seen previously, dimensions of CBS and CDS are partially contextual. This is why, like Bolino and Grant (2016) proposed for prosocial behaviour, we also propose to explore in more detail the positive and negative effects of the implementation of these constructs, while considering the essential role of innovation, whether it concerns implementation or generation / creativity. It will be essential to study if CBS constructs lead only to bright side outcomes, and if CDS constructs lead only to dark side outcomes; and if this is not the case, what are the determinants of the switching process. Finally, as we assessed in Chapter 2, there is continuity between deviance and conformity (Warren, 2003). Moreover, as Becker (1963), Goffman (1963), and Moscovici (1979) have studied, the individual is likely to behave destructively or constructively in relation to deviance. It would be the organizational, interpersonal, or individual conditions that would influence the behaviour and develop polarity. Thenceforth, studies on conformity (Asch, 1956; Lott, & Lott, 1961; Warren, 2003; Song, Ma, Wu, & Li, 2012) have argued about the close relationship with cognitive dissonance (Festinger, 1957; Brehm & Cohen, 1962; Pugh, Groth, & Hennig-Thurau, 2011). It would be interesting to explore whether there is a relationship between CDS, CBS behaviour, and cognitive dissonance, but also with affective dissonance. Moreover, in order to determine the dynamic aspect of deviance, it would be useful to study whether there is a moderating link, or mediator of conformity or deviance attitudes, on

the relation between the dissonance and behaviour. This research, which is certainly harder to carry out, would enable us to analyze the development of deviance from a state of cognitive dissonance. Therefore, this will include different notions that need to be defined. This dynamic approach will allow us to develop the notion of temporality and its impact on choice in the development of deviant behaviours.

In addition, at the statistical level, as discussed in each article, the study of the behaviour of CDS and CBS in a process of innovation and change would require a longitudinal approach to study the development and the impact of these behaviours. Thus, by integrating new variables, such as, for example, regulatory focuses (Higgins, Friedman, Harlow, Idson, & Taylor, 2001), it should be possible to analyze the temporality, specific to the individual, related to the emergence of CDS or CBS following a situation of cognitive dissonance. If we take up the notion of rupture in the approach of deviance from a dynamic point of view, the view taken will be different from the current studies dealing with deviance (Vadera, et al., 2013). This break can be an anchor point for the state of dissonance. The evolution and the reactions to which it will collide will thus influence the polarity of the behaviour developed. However, in view of the themes mentioned, this research will require a methodology specific to the context of dissonance and deviance. It will, therefore, be necessary to consider an investment involving more than one thesis rather than only one article.

The organizational context and the interaction with others, such as the supervisor's response to CDS or CBS acts, may also moderate the nature of the developed behaviour. Depending on the internal factors, the individual, in a given situation, will move towards CDS or CBS behaviour. Research on this aspect of deviance and proactivity must also be focused on work design theories, which is a determining factor in the formation of these behaviours (Parker et al., 2017). Moreover, considering the contextual nature specific to behaviours of CBS and

CDS, it would be adequate to invest on the study of the relationship between the emergence of work design and literature on paradoxes and contradictory contexts (Briscoe, 2016); always in this perspective of cognitive and affective dissonance, generating CBS or CDS. Indeed, as argued by Schad, Lewis, Raisch, and Smith (2016): “paradox studies offer vital and timely insights into an array of organizational tensions” (p.5), having, thus, an impact on the CBS and CDS enactment. Furthermore, few researches on this theme explores the dynamic aspect and the outcomes of paradoxes in organizational context (Putnam, Fairhurst, & Banghart, 2016; Schad et al., 2016). It would be interesting to explore this concept relationship with deviance or proactivity constructs.

To explore all these propositions for future research, it will be interesting to study a specific context: the "4th Industrial Revolution" that emerged over the past decade. Indeed, the world market is growing and becoming more and more challenging; therefore, organizations must follow this movement, and become increasingly competitive by innovating constantly. Innovation and the implementation of new technologies, such as information, communications, robotics, and related technologies, make it possible to modernize organizations. These transformations will also change the way businesses operate, produce, and work (Cascio & Montealegre, 2016). It is in this context that we propose to study the CBS and CDS. The growing and still incomplete interests on the introduction, and use, of new technologies in organizations (e.g., Meredith, 1987; Shrivastava, 1995; Christensen, 2001) provide a framework for studying psychological and social factors. Research could help to explore the organization's involvement in the integration of these new technologies at different levels (e.g., organization of work, personnel management, etc.); with new work design emergent theories (Parker et al, 2017); with new paradox and contradiction in work demands (Briscoe, 2016); or to help understand how workers live and experience these

changes (Cascio & Montealegre, 2016). Research on CBS and CDS seems to be an effective way of answering these questions.

5.6 Conclusion

Although organizational scholars conducted more and more research on proactivity, deviance, and innovation, the field is always open to new research. Indeed, as we've seen, there is a wide possibility of studies to develop. For the years to come, we remain convinced that a promising context for research, such as the 4th Industrial Revolution, will prove essential to understand and master, the relationship between individuals, teams, organizations (at each level) and new technologies. Thus, the study of attitudinal and behavioural CDS/CBS processes will be central to explain, and understand the evolution of new technological contexts.

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“I know you’ll think this odd, but I find it strangely exhilarating not knowing what’s coming next. I mean, I know what’s likely to happen, but I haven’t seen it.”

(Macros talking to Pug and Thomas)

— Feist, R.E. (1986). *A Darkness at Sethanon*. New York: Doubleday.